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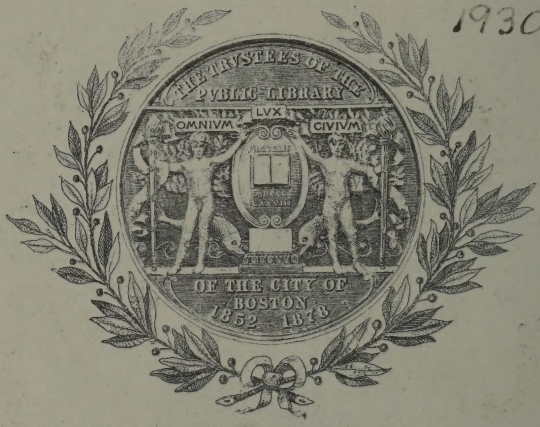

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MONTHLY BULLETIN

HEALTH DEPARTMENT

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CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

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Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 19. BOSTON, JANUARY, 1930. NO. 1

RÉSUMÉ OF DEPARTMENTAL ACTIVITIES FOR THE YEAR 1929.

Some of the outstanding favorable features for the year 1929, shown by a study of the approximate figures, to date, were the low infant mortality rate, — 68.03; the decreased number of deaths from diarrhea and enteritis in children under two years of age; the decrease in the number of deaths of mothers due to puerperal diseases; and the exceptionally low number of deaths from measles. These figures are the lowest ever recorded in Boston. The continued decrease in the number of deaths from pulmonary tuberculosis and the decrease in the number of deaths from heart disease and scarlet fever were also gratifying. Among the less favorable features were the continued decrease in the birth rate, a slight increase in the death rate and the continued increase in the number of deaths from cancer, influenza, lobar pneumonia and broncho-pneumonia. The last was due to the exceptionally large number of cases reported during the first quarter of the year, attributable to the prevailing influenza. The statistical table estimated for the calendar year 1929, with comparative figures for the five previous years, is shown on next page.

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(March 2, 1931)

VITAL STATISTICS. ESTIMATES FOR CALENDAR YEAR 1929 WITH COMPARATIVE FIGURES (ACTUAL) FOR FIVE PREVIOUS CALENDAR YEARS.

	Estimates for 1929.	1928.	1927.	1926.	1925.	1924.
Live births	18,300	18,751	19,071	18,640	18,596	19,776
Birth rate	22.72	23.46	24.05	23.68	23.74	25.46
Total deaths	11,665	11,563	11,102	11,719	11,571	10,933
Death rate	14.48	14.47	14.00	14.89	14.77	14.07
Infant deaths	1,245	1,446	1,455	1,575	1,582	1,472
Infant mortality rate	68.03	77.11	76.29	84.49	85.07	74.4
Deaths of persons over sixty years of age	5,022	4,829	4,389	4,549	4,360	4,000
Degenerative diseases — deaths:						
Cerebral hemorrhage	612	636	598	625	689	749
Arteriosclerosis	366	280	243	326	396	392
Heart disease	2,230	2,449	2,134	2,279	2,008	1,742
Chronic nephritis	746	628	663	635	572	564
Totals	3,954	3,993	3,638	3,865	3,665	3,447
Miscellaneous deaths:						
Cancer	1,245	1,227	1,218	1,179	1,159	1,189
Diarrhea and enteritis (under two years)	135	209	230	231	157	162
Broncho-pneumonia	840	781	583	680	624	542
Accidents	577	597	607	602	667	615
Homicides	21	27	31	31	27	40
Suicides	104	113	104	105	111	109
Puerperal diseases	112	126	141	137	125	150
Reportable diseases — deaths:						
Anterior poliomyelitis	10	14	63	7	9	6
Diphtheria	51	63	60	54	99	168
Influenza	131	62	37	76	81	30
Measles	7	71	40	60	113	44
Lobar pneumonia	571	576	531	602	557	482
Scarlet fever	26	31	53	38	47	51
Pulmonary tuberculosis	574	581	601	684	670	670
Typhoid fever	13	5	9	14	27	15

Medical Division.— Approximately 5,700 visits to cases of communicable diseases and 230 investigations as to causes of death were made by the medical inspectors during the year; 3,400 visits to lapsed cases of venereal diseases were made by the investigator.

Smallpox made its appearance during the year, but the efforts to localize the disease were successful. The prevention of human rabies is demanding a great deal of attention from the department. An unusual number of cases of typhoid fever originating from sources of infection outside the city and state, also necessitated much investigation.

A recent order of the State Department of Health requiring cases of venereal diseases, whether or not in a communicable stage, to be reported to the State Department of Health will undoubtedly increase the work of the medical inspectors. For the past two years, meningococcus cerebrospinal meningitis has been increasing in prevalence in various parts of the country. Fortunately, Boston has been spared thus far, but it is quite evident that within probably another year some practicable way will have to be devised for checking the spread of this disease.

The department is confronted with the increasing importance of degenerative diseases in causing untimely mortality in Boston. It is believed that these deaths may be postponed, if not prevented, by the intelligent application of present day medical knowledge. The department is endeavoring to educate the public through the "Monthly Bulletin," and by other means at our disposal, to the fact that fatalities from cancer may be prevented by utilizing the facilities for early diagnosis and treatment, which are available to everybody in Boston; that diabetes properly cared for need not today shorten life; that whatever factors may serve to bring about premature arteriosclerosis, focal infections are certainly capable of accelerating the condition, and that its progress may be checked if not prevented, by cleaning out chronically diseased tonsils, teeth, sinuses or gall bladders.

Division of Tuberculosis.— Two clinic stations have been added to the previous number, one at Fields Corner and one at the Roxbury Health Unit, making a total of twelve, for the examination of suspected tuberculosis. Arrangements have also been made for the examination of tuberculosis at night clinics held at the units.

In the five units equipped with a solarium, there is an average of twenty-eight children of preschool age on each roof, where a very comprehensive program combining sunlight and nutritional activities is being carried on. The progress which these children have made is remarkable and will be published in detail in the annual report for 1929.

The following statement shows the activities of the division:

Total examined in all clinics	13,595
Total number new patients	2,514
Total number clinic hours by physicians	2,187
Total number clinics	1,178
Total number VonPirquet tests	1,790
Total number Wassermann tests	861
Total number Alpine lamp treatments	3,368
Total number X-ray examinations	3,360

Eighty-five cases were admitted to private sanatoria; 180 to state sanatoria and 309 to the Boston Sanatorium; 39 cases were discharged from private sanatoria and 53 cases were discharged from state sanatoria.

The hospitalization of selected cases creates a troublesome time-consuming problem in itself, owing to the shortage of beds, but it is expected that with the completion of the new Boston Sanatorium, this situation will be relieved.

Dental Service.— Approximately 28,000 children were given dental care at the clinics during the past year,— an increase of 5,000

over the previous year. Three days per week are given to children under supervision of the Boston School Department; two days per week to children in parochial schools; and one morning to children of the roof clinics of the units and for children of preschool age. Thirty children per day are cared for in each clinic.

Nursing Service.— The Nursing Service in the Boston Health Department has continued as in the past, only enlarging along lines previously planned. The generalized service has proven eminently satisfactory, especially as regards service given to patients and their families, because the nurses knowing the problems in the families which they visit are able to advise much more intelligently, and their interest is naturally keener than it otherwise would be. The development of the tuberculosis program necessitated more service from this division on account of the enlarging of the clinic service and the opening of additional roofs. The communicable disease work for nurses has apparently been lighter than for the past five years. Nursing service has also been rendered to both day nurseries and parochial schools.

Division of Child Hygiene.— The amount of work carried on at the health units has increased satisfactorily. There are now thirty child health conference stations, at which are held 142 conferences each week. These are devoted exclusively to babies. The total number of visits of babies and preschool age children at these conferences was close to 64,000. The opening classes of the parochial schools were immunized against diphtheria. Later, they will be re-Schicked to determine their immunity. This work has been carried on by the medical inspectors of the department attached to the health units.

In the Eye Service at the North End Health Unit, 400 new cases were seen; 1,080 refractions found and glasses recommended in 370 cases.

Bacteriological Laboratory.— The laboratory will have made close to 51,000 examinations by the end of the year. Studies have been made of the tidewaters of Savin Hill and Freeport Beaches for evidence of pollution; the yearly survey of the shellfish industry has been completed, and preparations are also being made for work in connection with undulant fever which has been made a reportable disease.

Food Inspection.— Food inspection has been carried on in a satisfactory manner. More than 50,000 regular route inspections of stores and manufactories were accomplished, together with about 5,000 reinspections of premises where defects were found to exist. Terminal inspection at the railroads has proven its value.

Brighton Abattoir.— About 130,000 animals were killed for food; 936 animals were condemned,— a total of about 248,000 pounds of meat.

Milk Inspection.— About 15,000 examinations were made of samples of milk taken from wagons and stores. About 2,000 miscellaneous examinations were made of other food products and water. The regulation requiring that all milk sold in Boston after December 31, 1928, shall be either pasteurized or certified by the Medical Milk Commission of Boston, has been put into effect successfully. Much effort has been centered on the enforcement of the regulation relating to bacteria in milk received for pasteurization.

The Milk Inspection Division has also approved over 3,200 applications for dealers in ice cream, in compliance with regulations of the Health Commissioner, adopted September 12, 1928.

Dairy Inspection.— The Dairy Division has inspected about 6,300 dairies and rendered 19,000 services in the field. The inspectors have been very alert in their efforts to aid the producers to meet the city and state bacterial standard for milk at the city plants. This work has been followed up by inspection of the dairy farms and particular stress laid on methods of handling and cooling milk. All producers now know that they cannot expect the advantages of the Boston market unless they have a proper milk room and a sufficient supply of ice to properly cool their milk and keep it in that condition. Great stress has been laid on the matter of cleanliness of utensils used in the production of milk. There has been a marked improvement in the bottle-washing facilities and other mechanical devices for the cleansing of utensils at the various points.

Sanitary Division.— In this division approximately 28,000 inspections were made of original complaints, together with 80,000 reinspections; 22,000 nuisances were abated; 265 illuminating gas complaints were investigated and 654 reinspections were made. The usual routine inspections of dumps, stables, tenement houses, barber shops, hospitals, yards, cellars, alleys and premises where offensive trades are carried on, were made. Inspections were made of all halls, theaters, etc., for licensing purposes and general sanitary conditions. Drainage conditions were remedied in 1,218 buildings and 313 surface conditions. A survey was made of hospitals in this city to determine conditions with regard to the use and storage of X-ray films. As a result of this investigation, recommendations were made to the Building Commissioner and the Fire Commissioner and at the present time all fire risks have been attended to. About fifty licensed dumping places have been kept under close supervision and are maintained in as good order and condition as possible.

NEW HEALTH UNIT ERECTED IN WEST END.

The cornerstone of the sixth George Robert White Health Unit located at the corner of Blossom and Parkman streets, in the West End of Boston, was laid on December 27, 1929, with appropriate ceremony. Mr. George E. Phelan, Manager of the George Robert White Fund, presided. The invocation was delivered by Rev. Charles P. Heaney, pastor of St. Joseph's Church, and short addresses were made by Hon. Malcolm E. Nichols, Mayor of Boston; Dr. Francis X. Mahoney, Health Commissioner; Hon. Herbert Parker, President of the Bar Association, and City Councilor John I. Fitzgerald. At the conclusion of the exercises Rabbi Louis Epstein delivered the benediction.

This latest addition to the chain of health units from the George Robert White Fund is being erected on a lot of land containing about 15,200 square feet and located adjacent to the original health unit in the West End, where the idea was first put into practice and which has operated very successfully in the past.

The building is of three stories and will be provided with an administrative office, dental rooms, rooms for baby, prenatal and tuberculosis clinics, and rooms for fluoroscopy and radiography. There will also be an auditorium, with a seating capacity of 200, provided with a stage and motion picture equipment. On the third floor will be a solarium, which will be heated in winter. This will be used for the children of the community, of preschool age, who are undernourished and predisposed to tuberculosis. Suitable meals will be prepared for such children and it is expected that the same satisfactory results will be accomplished as in the other units which have been carrying on this work.

REGULATIONS GOVERNING THE REPORTING OF GONORRHEA AND SYPHILIS.

(Effective On and After January 1, 1930.)

COMMONWEALTH OF MASSACHUSETTS, DEPARTMENT OF PUBLIC HEALTH.

In compliance with the provisions of chapter 215, Acts of 1925, gonorrhea and syphilis, having been declared diseases dangerous to the public health, shall be reported on and after January 1, 1930, in the manner provided by the following regulations.

1. Whenever a physician has reason to believe that a person whom he has examined is suffering from gonorrhea or syphilis, *in any form or stage*, he shall immediately report the same to the State Department of Public Health. Such report shall contain the name and stage or form of the disease, the method of diagnosis, the age,

sex and marital state and community of residence of the patient, but not the patient's name nor street address.

2. The physician shall furnish each such patient with such circulars of information and advice concerning the disease in question as may be provided for that purpose by the State Department of Public Health.

3. The physician shall ascertain, if possible, whether such patient was in consultation previously with another physician over the same infection, and if so, in addition to making the usual report of the case to the Department of Public Health, he shall notify the physician previously consulted of the patient's change of medical adviser. The patient shall be informed that failure to disclose such previous consultation will result in the report of his name and address to the Department of Health by the physician previously consulted, as hereinafter provided.

4. Whenever a person suffering from gonorrhea or syphilis shall fail to return to his physician for observation or treatment, or to give satisfactory evidence that he is under the care of another physician as provided in the foregoing section, or to give satisfactory evidence of reasonable inability to keep the appointment, the physician shall report the same to the State Department of Public Health, giving the patient's name, address, age, sex and disease, within the time hereinafter provided as follows: Within one week of the date of the missed appointment in the case of primary syphilis, secondary syphilis with lesions of the skin or mucous membranes or in which such lesions have been healed less than one month, congenital syphilis with lesions of the skin or mucous membranes, syphilis in pregnant women, and acute gonorrhea: Within two weeks of the date of the missed appointment in all other forms or stages of syphilis and chronic gonorrhea.

5. Whenever a person suffering with primary or secondary syphilis has lesions in the mouth or upon the exposed portions of the body and is employed in any occupation requiring regular, direct contact with other persons, such for example, as barber, hairdresser, manicurist, waiter, waitress, nursemaid, domestic, nurse, etc., such person shall be ordered by the physician to discontinue such occupation until, in the opinion of a physician, the lesions are healed, and whenever the physician is not willing to assume responsibility for the obedience of the patient to such order, the name, address, age, sex, disease and occupation of such person shall be reported immediately by the physician to the State Department of Public Health.

6. Whenever a physician believes a patient to be suffering from gonorrhea or syphilis he shall immediately and, if necessary, repeatedly endeavor to learn the identity of the source of the patient's

infection. If within two weeks of identification the alleged source of infection has not given satisfactory evidence of being under the care of a physician, the physician securing the identification shall report the name, address, age and sex of such alleged source of infection and the disease for which he or she is said to be responsible, to the State Department of Public Health.

7. The State Department of Public Health shall forward to the board of health of the city or town of residence of every patient reported by name and every reported source of infection, a copy of such report, within twenty-four hours after its receipt. Immediately upon the conclusion of its investigation the board of health of said city or town shall report the result thereof to the State Department of Public Health.

8. At the end of every month the State Department of Public Health shall forward to the boards of health of cities and towns a report of the total number of cases of gonorrhea and syphilis, if any, by sex, which have been reported during the month as residing in such city or town.

9. Any and all previous regulations of the State Department of Public Health, governing the reporting of gonorrhea and syphilis are hereby repealed when the foregoing regulations take effect.

GEORGE H. BIGELOW, M. D.,
Commissioner of Public Health.

Approved and adopted at a meeting of the Department of Public Health held on October 8, 1929.

TO PHYSICIANS.

Have you attended any births during the calendar year 1929, or any previous year, wherein you failed to make a return of the births to the City Registrar?

The registration of births is of vital importance for its value to both the child and its parents, and for the record of your city in its standing among the cities of the country and the world with respect to its infant mortality rate.

There are many important instances where a birth certificate is found to be of value, especially in later life, and when it has not been reported much embarrassment is caused not only to the individual concerned but to the physician who was in attendance at the birth. We know that a birth certificate is necessary many times during life, and when we need it there is nothing that can replace it; it becomes invaluable.

THE INFLUENCE OF NONRESIDENT DEATHS ON BOSTON'S DEATH RATE.

The large number of nonresident deaths in Boston, a total greater than that of any other American city having a population of more than 300,000, causes Boston's statistics to suffer by comparison with those of other cities.

Boston being a hospital center attracts a large number of patients to its hospitals not only from surrounding cities and towns but from other parts of New England and from the Maritime Provinces. For certain operations, such as brain tumors, for example, Boston draws patients from all over the country.

The statistical rule of practice which requires a death to be registered, and tabulated for statistical purposes, in the city or town where the death occurred is reasonable, but nevertheless, when a city serves as a hospital center to the extent that Boston does it is impossible for such a city to make a satisfactory record if its rates are being compared with rates of cities with relatively fewer nonresident deaths.

When it is considered that practically nineteen (19) per cent of the total deaths in Boston for the year 1928 were those of nonresidents, and that of these, 91.5 per cent were deaths in hospitals, the importance of these deaths becomes apparent in the rate.

TABLE NO. 1.

DEATHS FROM CERTAIN CAUSES IN BOSTON WITH NONRESIDENTS DEDUCTED, SHOWING REDUCTION IN ACTUAL RATE PER 100,000 POPULATION. CALENDAR YEAR 1928.

	Total Deaths.	Death Rate Per 100,000.	Total Deaths, Nonresidents Deducted.	Death Rate Per 100,000 Nonresidents Deducted.	Decrease in Death Rate.
Measles	71	8.88	61	7.63	1.25
Scarlet fever	31	3.88	15	1.88	2.00
Diphtheria	63	7.88	33	4.13	3.75
Influenza	62	7.76	48	6.01	1.75
Anterior poliomyelitis	14	1.75	4	.50	1.25
Encephalitis lethargica	14	1.75	10	1.25	.50
Epidemic meningitis	17	2.13	13	1.63	.50
Pulmonary tuberculosis	581	72.70	532	66.57	6.13
Tuberculosis (other forms)	83	10.39	57	7.13	3.26
Cancer, all sites	1,227	153.52	925	115.74	37.78
Diabetes mellitus	176	22.02	138	17.27	4.75
Heart disease	2,449	306.43	2,215	277.15	29.28
Broncho-pneumonia	781	97.72	673	84.21	13.51
Lobar pneumonia	576	72.07	513	64.19	7.88
Diarrhea and enteritis (under two years)	209	26.15	143	17.89	8.26
Nephritis (acute and chronic)	646	80.82	565	70.69	10.13
Puerperal septicemia	27	3.38	16	2.00	1.38
Other puerperal causes	99	12.38	69	8.63	3.75
Congenital malformation	691	86.46	508	63 56	22.90
Suicides	113	14.14	90	11.26	2.88
Accidents	597	74.70	479	59.93	14.77
Homicides	27	3.38	22	2.75	.63

The reduced death rates on this account for actual residents are shown in the table on page 9. The outstanding reductions are found in deaths from anterior poliomyelitis, scarlet fever, diphtheria, cancer, heart disease, broncho-pneumonia, diarrhea and enteritis under two years, congenital malformations and accidents.

Nonresident deaths in Boston during the calendar year 1928 compared with those for certain other large cities where the data is available, are shown in the following table:

TABLE NO. 2.

NONRESIDENT DEATHS IN BOSTON, MASS., DURING THE CALENDAR YEAR 1928 COMPARED WITH THOSE FOR CERTAIN OTHER CITIES.*

	Population 1928, Estimated.	Total Deaths.	Nonresident Deaths.	Percentage of Nonresident deaths to Total.	Nonresident Infant Deaths.	Percentage of Nonresident Infant Deaths to Total.
Boston, Mass.	799,200	11,563	2,187	18.9	362	3.1
New York City	6,017,702	78,091	2,050	2.6	144	.18
Baltimore, Md.	830,370	11,929	1,059	8.9	68	.57
Pittsburgh, Pa.	673,800	10,095	1,622	16.1	163	1.61
San Francisco, Cal.	670,000	8,274	1,127	13.6	†	†
Milwaukee, Wis.	560,000	6,116	635	10.4	†	†
Newark, N. J.	474,000	5,512	521	9.4	51	.92
Minneapolis, Minn.	455,900	4,946	821	16.6	62	1.25
Kansas City, Kan.	391,000	5,590	694	12.4	†	†
Rochester, N. Y.	326,949	3,809	510	13.4	†	†

* Cities with a population of over 300,000 where information is available.
† Information not received.

The most striking feature in this table appears from a comparison of Boston's nonresident deaths with those of New York City. With a population more than seven and one half times as great as Boston, New York City had only 2,050 nonresident deaths during 1928, or 2.6 per cent of the total deaths for the year. Boston had 2,187 nonresident deaths, or 18.9 per cent of the total deaths for the year. Comparing nonresident infant deaths, New York City had 144, or .18 per cent, while Boston had 362, or 3.1 per cent of the total from all causes.

As deaths of nonresidents are not tabulated for many of the large cities in the United States it is fair to presume that the number of such deaths is relatively unimportant and that they do not influence the death rate to an appreciable extent. A city that is not a hospital center and which is not contiguous to other cities or towns of considerable population would not be expected to show a large nonresident death total.

In cities with a population of less than 300,000 where the information is available, Hartford, Conn.; Salt Lake City, Utah, and

Albany, N. Y., had higher percentages of nonresident deaths than Boston, the figures for the year 1928 being 28.3 per cent of the total deaths for Hartford; 23.3 per cent for Salt Lake City; and 21.2 per cent for Albany.

Boston is justifiably proud of its hospitals and the facilities which they offer to help those in need of medical or surgical care, wherever they may live even though, as the records now show, too many do not come to us until their condition is hopeless. Several large projects are now under way which will make Boston a still greater medical center and will probably serve further to increase the number of nonresident deaths in spite of educational efforts to teach people to seek earlier medical or surgical attention for those conditions which now figure so largely in the causes of nonresident deaths.

It is deemed fitting, however, that the situation shown in this article be brought to the attention of those who may feel disposed to conclude from officially prescribed statistical tabulations that Boston is failing adequately to protect the health of its people because of its lack of appreciation of those methods of public health administration which are supposed to have demonstrated that "any community can determine its death rate."

LAW ON BIRTH REPORTING.

Chapter 46, General Laws, section 3: Every physician, or medical officer registered under section 9 of chapter 112, shall keep a record of the birth of every child in cases of which he was in charge, showing date and place of birth, the name, if any, of the child, its sex, color, the name, age, birthplace, occupation and residence (including the street number, if any, and the ward number, if in a city) of each parent, the maiden name of the mother and the name of the physician or officer, if any, personally attending the birth. If the child is illegitimate, the name of and other facts relating to the father shall not be set forth except upon written request of both the father and the mother. Said physician or officer shall, within fifteen days after such birth, mail or deliver to the clerk or registrar of the town where such birth occurred, a report stating the facts herein above required to be shown on said record and also the said written request, if any; provided that if said report is not made within forty-eight hours after such birth, said physician or officer shall, within forty-eight hours, mail or deliver to said clerk or registrar a notice stating the date and place of birth, the street number, if any, the ward number, if in a city, and the family name, upon presentation to him of a certificate of the town clerk stating that any such birth has been duly reported, the town treasurer shall pay to such physician or officer a fee of 25 cents for each birth so reported.

SUMMARY OF WORK, DECEMBER, 1929.

ADMINISTRATION DIVISION.

Prosecutions	5	Personnel:	
Legal notices	90	Permanent appointments	10
Settlements:		Temporary appointments	2
Total cases	128	Promotions	2
Notices	97	Budget transfer	1
Bills	31	Leave of absence	1
Contracts approved	2		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	1,082	Day nurseries	3
Denatured alcohol	21	Garbage transportation	1
Hen licenses	12	Dumps approved	2
Manicure-massages granted	248	Milk	105
Manicure-massages disapproved	3	Pedlers	12
Ice cream manufacturers	2	Stable permit, temporary, approved	1
Ice cream dealers	46		
Lying-in hospitals approved	5		

MEDICAL DIVISION.

Reported cases	1,958	Visits:	
Nonresidents	105	By V. D. investigator	320
Deaths investigated	35	By medical inspectors to cases of communicable disease	624

BACTERIOLOGICAL LABORATORY DIVISION.

Diphtheria	1,469
Tuberculosis	316
Typhoid	23
Gonorrhea	666
Gonorrheal ophthalmia	59
Syphilis	949
Other examinations *	176
Bacteriological examinations of milk	805
Dark field	4
Genito urinary T. B.	34
Malaria	2
Milk bottles examined	8
Caps for milk bottles examined	24
Swimming pools examined	64

* Smears for Vincent's angina, 3; cultures for virulence, 3; blood for malaria, 2; blood for eosinophelia, 1; beef for poison, 1; evaporated milk for organisms, 1; urine for eberthella typhi, 6; feces for eberthella typhi, 6; urines for analyses, 153.

Preventive medicine is not for the healing of the nation but for the safeguarding of its people so they do not need to be healed.

Typhoid fever, like smallpox, is rather selective, preferring the ignorant, the careless and the unbeliever in vaccination and sanitation.— *Ohio Health News.*

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is a survey made of milk sold in Boston by wagon dealers and chain stores during December, 1929.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H	13.19	3.95	12,000
Antetomasso, Peter	13.14	4.25	12,000
Bancroft, Hugh *	13.91	4.95	16,000
Brandley, T. J. & P. J.	12.85	4.20	200
Buxton, William E	13.92	4.85	15,000
Casey, James D	12.56	4.01	9,000
Cashin, J. F., & Co	12.71	4.01	13,000
Cedar Hill Farm, Inc	12.10	3.70	2,000
Chapin, George L	12.74	4.08	7,000
Clark, Levi	12.53	3.99	9,000
Corkery, J. J	12.65	3.98	9,000
Cosgrove, M. S	12.97	4.15	16,000
Daley, John	12.69	3.97	8,000
Dean, Louis W.*	13.41	4.37	3,400
Deerfoot Farms Company	13.02	4.28	12,000
Denehy, Timothy	12.71	3.75	30,000
Driscoll, William B., Company	12.66	4.03	10,000
Edgerly, F. S	13.42	4.70	12,000
Elm Spring Farm Company	12.39	3.73	14,000
Ferguson, Malcolm D	12.56	3.98	10,000
Garfield, Mason	15 15	5.83	9,000
Garvin, Charles E	15.36	6.05	4,500
Giroux, J. E. & H. J	12.62	3.87	13,000

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Griffin, Joseph L.	12.93	4.04	17,000
Gushee, C. W.	12.21	3.75	14,000
Hampden Creamery Company	12.72	3.60	12,000
Herlihy Brothers, Inc.	12.65	3.88	13,000
Hickey, J. B	12.47	3.90	8,000
Holden, J. E.	12.66	4.00	13,000
Hood, H. P., & Sons, Inc.	12.59	3.94	13,000
Hutchinson, F. T.	12.93	4.20	7,000
Jones, William T., Company	12.94	4.20	14,000
Kendall Brothers	12.88	4.03	10,000
Kingston Brothers	13.29	4.26	7,000
Knapp, George J.	12.89	3.95	18,000
Lang Brothers	12.75	3.85	15,000
Larsson, Charles	12.63	3.90	9,000
Lyndonville Creamery Association	13.07	4.16	8,000
Manning, Harriet	12.70	3.95	20,000
McAdams, J. F., & Brothers, Inc	12.84	4.01	12,000
McKernan, John	12.89	4.10	24,000
Munchback, Albert W.	12.60	3.82	42,000
New England Creamery Products Company *	12.83	4.12	14,000
Robinson, A. J.	13.33	4.40	11,000
Schuster, Adam	12.66	4.10	20,000
Seven Oaks Dairy Compnay	13.00	4.07	12,000
Shick, Jacob	12.41	3.72	11,000
Somerset Farms Milk Company	12.58	3.95	11,000
Sterling Farms Milk Company	12.57	3.82	13,000
Stone, H. L.	12.64	4.00	10,000
Stuart, W. E., Company	12.82	4.08	12,000
Turner Centre System	12.53	3.91	13,000
United Farmers' Co-operative Creamery Association, Inc.	12.97	4.06	10,000
Walker-Gordon Laboratory Company *†	12.46	3.90	75
Weiler, E., & Sons	13.22	4.35	11,000
Westwood Farms Milk Company	12.71	4.01	14,000
White Brothers	12.62	3.87	13,000
Whiting Milk Companies	12.46	3.86	10,000
Whittemore, W. D.	12.79	3.95	9,000
Williams, E. C.	12.40	4.05	11,000
Wiswall, Granville A.	12.73	4.00	10,000
Woodland, Charles L.	12.74	4.00	9,000

* Milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Kind of Milk.	Solids. Per Cent.	Fat. Per Cent.	Standing Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc....	12.44	3.90	18,000
M. Brown & Sons.....	Whiting Milk Companies...	12.76	3.98	12,000
Cloverdale Company, The.....	Turner Centre System.....	12.44	3.88	17,000
Economy Grocery Stores Corporated.	Herlihy Brothers, Inc.....	12.58	3.77	16,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Company.	12.91	4.10	12,000
Morgan Brothers Company.*..	New England Creamery Products Company.	12.65	4.07	18,000
M. Winer Company.....	M. Winer Company.....	13.17	4.27	16,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.31	4.50	8,000
Cosgrove, M. S.....	13.63	4.70	12,000
Dean, Louis W.*.....	13.87	4.70	3,000
Elm Spring Farm Company.....	13.25	4.37	10,000
Griffin, Joseph L.....	13.73	4.77	9,000
Herlihy Brothers, Inc.....	12.58	4.33	15,000
Hood, H. P., & Sons, Inc.....	12.86	4.46	8,500
Jones, William T., Company.....	13.26	4.40	6,000
McAdams, J. F., & Brothers, Inc.....	13.15	4.45	8,000
Robinson, A. J.....	13.15	4.25	12,000
Seven Oaks Dairy Company.....	13.38	4.40	17,000
Sterling Farms Milk Company.....	12.67	4.22	9,000
Turner Centre System.....	13.41	4.48	12,000
Weiler, E., & Sons.....	13.45	4.41	10,000
White Brothers.....	13.04	4.65	12,000
Whiting Milk Companies.....	12.66	4.13	13,000
Woodland, Charles L.....	13.46	4.65	7,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Raw milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fats. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Grove Farm, Inc.	Own	13.44	4.85	3,400
Hood, H. P., & Sons, Inc.	Own	13.91	4.75	1,100
New England Creamery Products Company.	Bellows Stock Farm	12.95	4.10	1,400
Walker-Gordon Laboratory Company.*	Own	12.75	4.10	3,600
Whiting Milk Companies	Alta Crest	13.08	4.30	1,400
Whiting Milk Companies	Hampshire Hills	13.60	4.50	1,300

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	12.06	3.40	200
Hood, H. P., & Sons, Inc.	Own	13.13	4.05	75

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	337
Milk from stores	826
Evaporated milk	2
Vinegar	12
Miscellaneous examinations	7
Samples referred to Bacteriological Laboratory for examination:	
Bottles	8
Caps	24
Milk	805
Meat	1
Court cases	9
Fines	$135

DAIRY DIVISION.

Total services	1,067	Total cattle inspected	6,907
Dairies inspected	397	Inspections of milk plants and licensed dealers	288
Scoring above 50 *	307	Bacteriological examinations	96
Scoring below	90	Country creamery inspection	7
With milk rooms	323	Sediment tests	271
Without milk rooms	74		
Inactive	8		

* Passable mark.

FOOD INSPECTION DIVISION.

DECEMBER, 1929.

District inspections	3,211
Reinspections	339
Market inspections	1,580
Terminal inspections	405
Vehicle inspections *	5,135
Stand inspections	1,845
Complaints	20
Notices to abate	127
Condemnations	9,404 pounds
Samples taken	10
Pedler Service:	
Numbers assigned	14
Licenses certified	11
Vehicles approved	527
Licenses to remove bones	51

* This represents weekly inspections by four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	3,561	Parts condemned	850
Calves inspected	3,974	Animals condemned	120
Swine inspected	4,092	Total of meat condemnations (pounds)	17,437
Sheep inspected	150		

SANITARY DIVISION.

Original inspections	2,215	Complaints investigated	422
Causes for action found	1,549	Nuisances abated	1,709
Reinspections	6,037	Routine inspections	3,456
Legal notices served	84		

The fact that a well supply has been used for many years and has not caused water-borne illness is not proof that the supply is not subject to contamination. If owners of public water supplies overlook . . . or permit . . . contamination to continue, for financial or other reasons, such owners . . . would be liable for damages for any illness . . . in accordance with recent court decisions.— *Ferguson and Klassen.*

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	17	104	106	210	21	29	50
East Boston	13	41	91	132	4	14	18
North End	12	28	47	75	8	9	17
West End	12	34	34	68	3	1	4
South Boston	12	40	64	104	4	5	9
Boston Dispensary	7	21	18	39	5	1	6
Brighton	8	12	13	25	4	2	6
Charlestown	8	18	20	38	2	4	6
Codman Square	13	73	109	182	9	9	18
Hyde Park	7	37	20	57	6	—	6
Roxbury	5	70	54	124	8	18	26
Arcadia Street	3	13	28	41	—	9	9
Total	117	491	604	1,095	74	101	175

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	33	20	35	132
East Boston	16	4	—	43
North End	9	7	—	58
West End	3	1	—	—
South Boston	7	2	91	70
Boston Dispensary	1	—	—	—
Brighton	3	4	—	—
Charlestown	6	2	—	—
Codman Square	12	12	—	—
Hyde Park	1	2	—	—
Roxbury	17	5	—	—
Arcadia Street	5	—	—	—
Total	115	49	126	303

The constitutional privilege of being born free and equal before the law amounts to but little to the youngster whose parents feed him on soothing syrup and colic medicine when he cries for milk and a reasonable amount of comfort. The healthy baby who gets enough of the right sort of food plus plenty of fresh air and sunshine rarely ever cries if his clothes are comfortable.— *Illinois Health Messenger.*

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING DECEMBER, 1929.

Classification.	Number.	Percentage.
After death	5	16.67
Seven days or less	1	3.33
Eight to fourteen days, inclusive	2	6.67
Fifteen to twenty-one days, inclusive	3	10.00
Twenty-two to thirty-one days, inclusive	—	—
Within First Month. (Total)	11	36.67
Within second month	4	13.33
Within third month	1	3.33
Within fourth month	1	3.33
Within fifth month	2	6.67
Within sixth month	—	—
Within seventh month	—	—
Within eighth month	—	—
Within ninth month	—	—
Within tenth month	1	3.33
Within eleventh month	—	—
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	20	66.66
Within second year	2	6.67
Within third year	1	3.33
More than three years	7	23.33
Grand totals	30	99.99

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF DECEMBER, 1929.

Public Sanatoriums.	Admitted.	Discharged.
Boston Sanatorium	18	14
North Reading State Sanatorium	2	9
Lakeville State Sanatorium	3	5
Rutland State Sanatorium	3	3
Westfield State Sanatorium	—	3
Totals	26	34

Private Sanatoriums.	Admitted.	Discharged.
Doctor Lapham's Sanatorium	4	1
Plymouth County Sanatorium	—	1
Channing Home	2	—
United States Veterans' Hospital	5	—
Doctor Crane's Sanatorium	1	—
Totals	12	2

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, December, 1929.

Inspections	557
Physical examinations	297
Schick tests	145
Toxin antitoxin administrations	137
Toxoid administrations	201
Vaccinations	86
Vaccination certificates	38
Parochial school visits	4
Day nursery visits	22
Conferences	5

Report of Child Health Conferences, December, 1929.

Station.	Number of Babies.	Number of Preschool (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	85	12	97	8	2	10	3	32
31 Lincoln street, Brighton	38	2	40	4	—	—	4	10
Charlestown Municipal Building	233	8	241	29	1	30	8	30
Codman Square Library	229	24	253	36	2	38	8	32
Columbia Road Municipal Building	202	6	208	24	2	26	8	26
1 Arcadia street, Dorchester	245	4	249	24	1	25	9	28
East Boston Health Unit	244	21	265	42	3	45	9	29
Hyde Park Municipal Building	116	11	127	8	—	8	9	15
Curtis Hall, Jamaica Plain	79	7	86	12	—	12	3	29
41 North Margin street	156	24	180	21	—	21	9	20
Roslindale Municipal Building	202	37	239	20	1	21	5	50
Children's Hospital	105	6	111	9	1	10	5	22
1049 Columbus avenue	193	20	213	27	—	27	9	24
Roxbury Health Unit	372	38	410	57	10	67	12	34
133 Dorchester street, South Boston	240	33	273	37	4	41	9	30
122 Tyler street	81	9	90	5	2	7	5	18
Shawmut Avenue Municipal Building	52	6	58	6	—	6	3	19
57 East Concord street	149	10	159	17	—	17	4	40
17 Blossom street	223	29	252	31	1	32	9	28
Totals	3,244	307	3,551	417	30	447	131	27

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, DECEMBER, 1929.

Station.	Toxin-Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	—	—	1	1	2
31 Lincoln street, Brighton	—	—	—	—	—
Charlestown Municipal Building	6	—	—	6	9
Codman Square Library	41	34	42	117	99
Columbia Road Municipal Building	4	6	11	21	7
1 Arcadia street, Dorchester	4	8	7	19	7
East Boston Health Unit	1	—	—	1	2
Hyde Park Municipal Building	—	—	—	—	8
Curtis Hall, Jamaica Plain	—	1	1	2	11
41 North Margin street	—	—	—	—	—
Roslindale Municipal Building	6	5	4	15	3
Children's Hospital	5	3	2	10	8
1049 Columbus avenue	4	1	1	6	20
Roxbury Health Unit	10	8	14	32	9
133 Dorchester street, South Boston	3	1	1	5	1
122 Tyler street	—	1	3	4	3
Shawmut Avenue Municipal Building	2	6	3	11	5
57 East Concord street	1	3	4	8	2
17 Blossom street	—	—	—	—	1
Totals	87	77	94	258	197

DENTAL ACTIVITIES AT HEALTH UNITS.

DECEMBER, 1929.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
Numer of cases seen	* 119	378	338	314	518	397	472	2,536
Number of treatments:								
By dentists	127	516	548	372	615	374	496	3,048
By hygienists	51	103	159	101	95	126	138	773

* Commenced December 17.

Referred by: Parochial schools; public schools; roofs, T. B. contacts.

HEALTH UNIT ACTIVITIES.

DECEMBER, 1929.

BOSTON DISPENSARY:

Calls by district physician	433

BOSTON LYING-IN HOSPITAL:

Number prenatal clinics	20
Attendance	210
New cases	60

COMMUNITY HEALTH ASSOCIATION:

Homes visited	12,043
Cases referred	526
Diseases reported	16
Number mothers' clubs meetings	3
Attendance	46
Christmas parties, mothers' clubs	5

FAMILY WELFARE SOCIETY:

Number staff meetings	9
Attendance	98

CHILDREN'S HOSPITAL:

Number infantile clinics	11
Attendance	98
New cases	3

STATE DEPARTMENT OF MENTAL HYGIENE:

Number of clinics	3
Attendance	34
New cases	4

CATHOLIC CHARITABLE BUREAU:

Number Christmas parties	2
Attendance	1,250

RED CROSS:

Home Nursing classes	3
Attendance	65
Boy Scout meetings	1
Attendance	16

HEALTH DEPARTMENT:	
Christmas parties for mothers' clubs	3
Attendance	126
REFRACTION SERVICE:	
Number of diagnoses	42
New glasses received	41
New cases	7
NOSE AND THROAT SERVICE:	
Number of clinics	1
Attendance	66
Operations received	18

NURSING SERVICE.

HOMES VISITED		15,237
CHILD HYGIENE:		
Visits to new cases	1,207	
Visits to old cases	8,849	
Total		* 10,056
COMMUNICABLE DISEASES:		
Visits to new cases	1,185	
Visits to old cases	2,387	
Total		† 3,572
TUBERCULOSIS:		
Visits to new cases	217	
Visits to old cases	4,268	
Total		‡ 4,485
MISCELLANEOUS VISITS:		
Infant death investigations	52	
Maternal death investigations	5	
Patients accompanied to hospitals	4	
Visits to day nurseries	37	
Visits to parochial schools	312	
Total		410
Total number of visits		18,523

	Hrs.	Min.
Hours in station by nurses	3,543	50
Hours at baby and P. S. conferences	1,902	15
Hours at tuberculosis clinics	600	45
Total number of visits	6,046	50

* Includes 111 wrong addresses; 936 not seen; a total of 1,047 absent visits.

† Includes 31 wrong addresses; 110 not seen; a total of 141 absent visits; 168 ophthalmia visits were also made.

‡ Includes 31 wrong addresses; 354 not seen; a total of 385 absent visits; 1,991 visits to positive cases; 593 to contact cases and 1,516 to suspect cases were made.

VITAL STATISTICS, DECEMBER, 1929.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING DECEMBER, 1929, WITH COMPARATIVE FIGURES FOR DECEMBER, 1928.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1929.	1928.	Increase or Decrease.	1929.	1928.	Increase or Decrease.
All Causes:						
Total deaths	969	953	+16	14.44	14.31	+.13
Nonresidents deducted	791	798	—7	11.78	11.98	—.20
By Age:						
Under one year	110	113	—3	1.64	1.70	—.06
One year to four years, inclusive	33	27	+6	.49	.40	+.09
Sixty years and over	430	424	+6	6.41	6.37	+.04
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	43	37	+6	.64	.55	+.09
Arteriosclerosis	36	37	—1	.54	.55	—.01
Heart disease	179	198	—19	2.67	2.97	—.30
Nephritis, chronic	66	45	+21	.98	.67	+.31
Infant and Maternal Mortality:						
a. Total registered live births	1,282	1,253	+29	19.10	18.81	+.29
b. Registered stillbirths	27	33	—6	.40	.49	—.09
Stillbirths per 1,000 births and stillbirths	—	—	—	20.63	25.66	—5.03
c. Deaths of mothers from causes incident to childbirth	7	6	+1	.10	.09	+.01
Deaths of mothers per 1,000 births and stillbirths	—	—	—	5.35	4.66	+.69
Deaths of children in first year of life	110	113	—3	1.64	1.70	—.06
Deaths in first year per 1,000 live births,	—	—	—	85.80	90.18	—4.38
Violence:						
Accidents	45	41	+4	.67	.61	+.06
Homicides	1	1	—	.015	.015	—
Suicides	5	8	—3	.07	.12	—.05
Miscellaneous:						
Alcoholism, acute or chronic	23	15	+8	.34	.22	+.12
Broncho-pneumonia	68	82	—14	1.01	1.23	—.22
Cancer	111	98	+13	1.65	1.47	+.18
Cirrhosis of the liver	5	8	—3	.07	.12	—.05
Diabetes mellitus	19	12	+7	.28	.18	+.10
Diarrheal diseases, children under two years of age	11	17	—6	.16	.25	—.09

Note.— All totals and rates subject to slight increase.

		CASES AND DEATHS.					
		Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
		1929.	1928.	Increase or Decrease.	1929.	1928.	Increase or Decrease.
Communicable Diseases:							
Anterior poliomyelitis	Cases..	4	5	—1	.06	.07	—.01
	Deaths.	1	—	+1	.015	—	+.015
Cerebrospinal meningitis	Cases..	3	2	+1	.04	.03	+.01
	Deaths.	2	—	+2	.03	—	+.03
Diphtheria	Cases..	135	120	+15	2.01	1.80	+.21
	Deaths.	5	7	—2	.07	.10	—.03
Influenza	Cases..	11	138	—127	.16	2.07	—1.91
	Deaths.	6	9	—3	.09	.13	—.04
Measles	Cases..	71	48	+23	1.06	.72	+.34
	Deaths.	—	—	—	—	—	—
Pneumonia (lobar)	Cases..	141	154	—13	2.10	2.31	—.21
	Deaths.	57	54	+3	.85	.81	+.04
Scarlet fever	Cases..	316	233	+83	4.71	3.50	+1.21
	Deaths.	1	1	—	.015	.015	—
Tuberculosis (pulmonary)	Cases..	114	111	+3	1.70	1.67	+.03
	Deaths.	30	52	—22	.45	.78	—.33
Tuberculosis (other forms)	Cases..	21	32	—11	.31	.48	—.17
	Deaths.	5	6	—1	.07	.09	—.02
Typhoid fever	Cases..	2	5	—3	.03	.07	—.04
	Deaths.	—	—	—	—	—	—
Whooping cough	Cases..	242	112	+130	3.60	1.68	+1.92
	Deaths.	7	1	+6	.10	.015	+.085

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1929 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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Mar 19
B. P.

SICKNESS PREVENTION.

The assertion that "a community can determine its own death rate" serves a useful purpose in stimulating community pride. Like other statements which may be justifiably used for political purposes it is an exaggeration. Preventive medicine has very distinct limitations. We do not know how to prevent a large proportion of the presumably preventable deaths which are occurring daily because we do not yet thoroughly understand the factors which cause them. The application of the knowledge which we possess regarding the prevention of diseases has also very distinct practical limitations. In the ordinary course of human lives people cannot always do what they know that they ought to do to safeguard health even though they would like to do it. Nevertheless, the possibilities of preventive medicine are far from being realized and any experience which suggests the practicability of more effective use of existing knowledge of the subject is always worthy of careful consideration.

Efforts on the part of industrial and business organizations to prevent disability and absenteeism on account of acute illness have proved generally disappointing. As ordinarily seen in actual operation, medical service in industry or business is occupied with the treatment of illness or injury and perhaps thus justifying itself in reducing absenteeism, but showing in the direction of disease prevention very little which can stand critical analysis. On the other

hand, when a systematic effort is made to prevent accidents in an industry, plainly discernible results in the way of a distinct reduction in accidents usually follow.

The prevention of accidents is, of course, a different proposition from the prevention of sickness. Among other differences to be noted, the cause of an accident and its relation to the individual's occupation is usually manifest while wrong inferences as to the cause of sickness and its relation to occupation are easily made.

A widespread, deeply rooted prejudice against work is probably accountable for the presumption that causes of unsatisfactory health must be found in the activities or environment in which a business man, mechanic or school child, spends less than one third of his time if Sundays and holidays be included. There is an entirely unjustifiable tendency to blame a person's occupation for his illnesses and to assume that the school room is accountable for a child's health.

In this region the chief cause of disability and loss of time from industry and business are infections of the respiratory tract. The measures which appear to have proved useful in controlling the spread of such infections call for the power to supervise the lives of individuals for twenty-four hours a day, including opportunity to dictate in the matter of food and drink and the way they shall be served.

Other differences in the problems of preventing accidents and preventing sickness may be enumerated, but it is also to be noted that there is a difference in the attitute of approach to the problem of accident prevention and the prevention of absenteeism on account of sickness, and it would not seem improbable that more of the ideas applied in connection with accident prevention might be advantageously imitated for the latter purpose.

Medical service in industry customarily represents an attempt at the application of formulated procedures which some person or persons who have set themselves up as teachers in the subject have prescribed as necessary or advisable. Unsatisfactory progress in the prevention of clearly preventable occupational diseases from forms of chemical poisoning has often been due to the annoying impracticability of preventive measures prescribed rather than to the workers who have been blamed for their carelessness and stupidity.

In contrast, when an accident problem has been successfully approached it has been regarded, aside from certain general principles, as an unsolved problem of that particular industry whose solution gives opportunity for the exercise of originality and ingenuity on the part of anybody concerned. Everybody feels privileged to make suggestions regarding the human factors involved as well as with respect to the mechanical appliances which must be taken into account in any successful accident prevention campaign.

Those who have thought that medical service in industry would come nearer realizing its possibilities in the prevention of sickness if methods could be devised to make it "everybody's business" like accident prevention, will find encouragement in an article by Dr. D. L. Lynch, M. D., Medical Director of the New England Telephone and Telegraph Company, appearing in the "Red Cross Courier" of January 15, 1930.

There is no occasion when the truth of the adage "a little knowledge is a dangerous thing" is likely to be better demonstrated than when an accident has occurred, yet Doctor Lynch has this to say regarding first aid in his organization employing 21,000 workers, subjected to a wide variety of industrial hazards.

"Founded upon ten years' experience in the training of many thousands of men in industry in first aid care of injuries, it is our conclusion that the problem is more satisfactorily, more efficiently and much more practically cared for by instructors selected from the men concerned than it would be cared for by professional instructors or doctors. We have tried both methods of instruction."

While Doctor Lynch does not specifically so state, it may be assumed that his conclusion was supported by a reduction in the amounts paid in compensation under the employees' liability laws, in the various states covered by the operations of his company.

Some of the practical features of his experience and his methods which suggest a wider application are indicated by the following excerpts from Doctor Lynch's article:

"It is our opinion that lay instruction is better accepted and penetrates deeper because well-selected instructors know their fellow workmen and their personalities; know how to reach them . . . and they talk a language which workmen, even laborers, understand."

"It is true at any kind of a formal meeting that the speaker is rarely questioned, whether it be a medical meeting or not, but when the speaker is a fellow workman, teaching first aid to his own gang, he is not allowed to get away with anything, in our experience. Consequently, instead of a cut-and-dried perfunctory lecture on first aid, meetings conducted by lay instructors become lively discussions of what's what and why in first aid and accident prevention."

. . . . . .

"The lay instructor is selected generally because he has demonstrated in some way a leadership among men with whom he works. . . . He does his first aid teaching voluntarily because he likes it. . . . He is, therefore, a teacher, for no other reason than because he is interested in first aid and safety, and especially because

he is anxious that his group, or his district, shall be free from lost time accidents and whatever opprobrium attaches thereto."

. . . . . .

"The lay instructor on the job all day with his class has much less difficulty in keeping them together. . . . He has a definite objective; to show that all men in his group or district are qualified in first aid. He takes pride in that result. . . ."

"Lay instructors of the type described . . . are familiar with the most frequent types of injuries and their causes. . . . Men do not hesitate at such meetings among themselves to call a spade a spade and to make plain their ideas about unsafe plant practices and to condemn them. . . . Lay teaching has the advantage that classes for instruction can be gathered together on very short notice. . . . Stormy weather keeping men about the plant at noon hour is seized upon. . . . An early morning half hour or an evening hour when the 'gang' is around killing time is like manna for the local instructor. . . . A doctor or professional first aid teacher cannot be a safety man in any plant until he has worked in it."

PSITTACOSIS AND RABIES.

In the midst of the excitement over psittacosis, give a thought to the man in Chicago who saw in the news of the disease a blessing in disguise. He telephoned the city health department to remove the parrot from his house in order to abate a psittacosis menace. But a health department officer, having examined the bird, declined to take charge of it. There was no indication that the parrot was sick. It then appeared that the householder when he telephoned was acting in hope rather than on conviction. His wife likes the parrot. Evidently he does not. It is a little tale of theoretical psittacosis that may serve to lighten the tension in the public mind because of the cases of actual psittacosis that have occurred among human beings in this country.

How many cases have there been? It is difficult to say, because of the probability that some of the supposed victims have in reality been suffering from other troubles. But, true or false, reports of psittacosis have been sufficiently numerous to cause considerable public concern and so to make it worth while to suggest that a sense of proportion be not forgotten. Here is an instance of the fear of the unfamiliar. Persons who shudder at the thought of a disease transmitted by parrots are not alarmed when they read of the dreadful disease sometimes transmitted to mankind by dogs and other animals. "Psittacosis," word of weird spelling and

mysterious connotation, appeals to the imagination and the terrors it inspires much more strongly than does the familiar "rabies."

Psittacosis, originating among birds from the tropical forests of Brazil, would seem to be much easier of control than rabies, spread among the dogs in a land where such animals are permitted to run unrestrained through the streets of towns and cities. In this country there are many dogs but few parrots. As parrots may be a source of danger their importation should, of course, be subjected to suitable regulations. But in a state in which it is impossible to enforce an order that dogs be restrained for ninety days, as a precaution against the spread of rabies, it is hardly worth while getting much excited over a rare disease which may be contracted from a sick parrot in a cage. Whether or not a well parrot should be a welcome guest in a happy home is, of course, another question. The Chicago man who called the health department had his opinion on the subject. And so did his wife.

(*Boston Transcript.*)

THE RESULT OF THE STUDY OF BARBERS AND BARBERING.

The Commonwealth of Massachusetts, Department of Public Health,
State House, Boston, January 2, 1930.

New England Journal of Medicine.

Since 1,675 doctors in the state helped us by answering our questionnaire in the investigation of barbers and barbering which the Legislature directed, we would like to report to them, through your columns, a brief summary of our findings.

1. All the state and city health authorities outside Massachusetts who had regulations on barbering and expressed an opinion felt it to be a matter of minor health significance. All the boards of barber examiners felt just the opposite. No local health authorities in Massachusetts felt that added authority in this matter was needed.

2. Only 16.3 per cent of the doctors replying felt that they had ever seen diseases attributable to barber shops. In a year and a half these 274 men had seen 654 cases, of which 58 per cent were pustular skin infections, 35 per cent could not be classified, and 7 per cent were scattered among nits, ringworms and syphilis (!). However, we felt that more should be known epidemiologically before accepting the few cases of syphilis which were reported by the five physicians claiming 34 per cent of all the cases.

3. In response to repeated newspaper requests and two public hearings, forty persons in a population of over four million and a

quarter reported to us that they felt that at some time in their lives they had been infected in a barber shop. Only twenty of these could be located. In three of them the claim seemed reasonable.

4. At the two hearings some did and some did not think further regulation and licensing of barbers was needed.

5. The six barbering schools that could be located left much to be desired pedagogically.

6. Finally, 2,439 shops widely scattered over different sized communities were visited. We found 34.5 per cent in good sanitary condition, 18.4 per cent bad, and 46.6 per cent were in between. Details are, of course, included in the report. In general, the sanitary and æsthetic niceties were proportional to the prices charged.

7. We concluded:

(*a*) Unquestionably there is an opportunity for improvement in the sanitary conditions of barber shops.

(*b*) Only a negligible amount of skin infection can be traced directly to barber shops.

(*c*) Authority for adequate supervision of barber shops equal to any in the country already exists, and in certain cities in the Commonwealth codes have already been adopted that are entirely admirable. Budget allowances must, of course, be made to permit a competent inspectional service.

(*d*) No evidence was obtained which would indicate that further legislation for the licensing, regulating or inspecting of barbers or barber shops was needed at this time.

Yours truly,

GEORGE H. BIGELOW, M. D.,
Commissioner of Public Health.

WASH FIRST.

Religion and science shake hands over the wash bowl. Sanitation is in part a ratification of age-old customs and traditions, and its dicta have the same object as many ancient religious rituals — the welfare of men.

The cleanliness observances of this age, based not only on good form but on scientific knowledge and laboratory research, confirm, odd as it may seem, the soundness of many customs of primitive religions in all parts of the world. Long before any one had traced any connection between dirt and disease, religious customs required the washing of hands before meals. This act of cleanliness has grown from a religious sacrament to a hygienic requirement, and from that to a social grace. We moderns observe it, not to please a god, but for health and æsthetic reasons. It is not longer a symbol of purification, as it was with the Egyptians.

but a sign of acquaintance with polite usage. The rite of purification, which consisted of handwashing, so habitually preceded a meal that the terms became interchangeable.

In the ceremonies of many religions in connection with the care of the sick, we can see the forerunners of certain modern practices in the routine care of patients. The emphasis has changed from religious purity to the comfort of the sick person, sometimes, or to the hygienic care that is a part of the treatment of all disease. The mode of procedure has changed, too, with the generations and with the change of emphasis, but with all this one can still see the first faint beginnings of a science in the rites of the ancient peoples.

Prophets called for purification. Public health workers call for hygiene. The latter have given us scientific reasons for much of the routine of cleanliness which the modern man follows. The former gave a religious explanation which the primitive man accepted. Out of the gropings of the past has come a science which has thrown new light on sources of infection which the ancients but dimly grasped. But the warning of sanitarians, like that of the prophets of old, includes "Wash your hands. Be clean."

The religious emphasis on cleanliness is not a thing of the past. In our own country many churches have established clinics and health centers and settlements where the gospel of soap and water is preached along with the healing of personal and social ills. In the home mission centers the effort to promote cleanliness standards and a higher standard of life often goes hand in hand with the effort to bring home religious truths. Similarly, in foreign mission fields, no program is considered complete which does not plan for a clean body as well as a pure heart. Cleanliness had its rise in religion. Its value has been acclaimed by doctors, nurses, sanitarians, hygienists, and others, but it still is a part of all vital religious teaching.

(Excerpts from the *Cleanliness Journal*, January, 1929.)

THE PREVALENCE OF SMALLPOX.

Although smallpox was less prevalent and not so virulent in the United States during the first six months of this year as in the like periods of 1928 and 1927, three states had case-fatality rates of more than one per cent. There are two very gratifying items in the reports of the prevalence of smallpox from individual states, namely, that no state reported cases in excess of 2,000 and that not a single case was reported by the District of Columbia. Last year, three states — Indiana, Kansas and North Carolina — reported more than 2,000 cases for the first six months.

(From *Metropolitan Life Insurance Bulletin*, December 1929.)

PROBLEMS OF MECHANICAL REFRIGERATION.

Several deaths which have occurred recently in Chicago have been attributed to poisoning by methyl chloride which leaked from refrigerating systems. These have received wide publicity and have caused apprehension, even among the users of refrigerating equipment entirely unlike that to which the fatalities have been attributed. It is the purpose of this statement, authorized jointly by the Public Health Service, the Bureau of Standards, and the Bureau of Mines, to state the essential facts regarding this danger and to relieve any undue anxiety in the minds of those possessing household refrigerating systems.

All refrigerating systems in practical use depend for their operation upon the repeated gasification and condensation (sometimes by dissolving or "absorbing" in another substance) of a material which is technically called a "refrigerant." In most cases the refrigerant is confined under pressure in the refrigerating machine, and if it escapes from the system, becomes a gas which mixes with the surrounding air.

For many years the gas ammonia was almost the only refrigerant used. For technical reasons, other refrigerants have more recently been introduced and are now extensively employed. Sulphur dioxide and methyl chloride are the most important of these.

None of the three refrigerants mentioned, ammonia, sulphur dioxide or methyl chloride can be breathed with impunity, but none are violent poisons when breathed for a short time in low concentrations. If the same amount of the three substances is considered, methyl chloride is the least poisonous of the three; but because their physiological effects are quite different it is hard to make a quantitative comparison. Sulphur dioxide and ammonia both have strong odors which are easily recognized and are so irritating that no one is likely to breathe much of them if escape is possible. Methyl chloride has a slight and rather pleasant odor, which probably would not awaken a sleeping person and might not be recognized by one who was awake, To this fact is to be attributed any greater hazard from methyl chloride than from other commonly used refrigerants.

Most of the trouble attributed to methyl chloride has occurred in connection with multiple refrigerating systems installed in apartment houses in which a single compressor delivers the refrigerant through tubes to the refrigerators in the several apartments. A large majority of the individual household refrigerators of the motor driven ("electric") type now in use employ sulphur dioxide as the refrigerant. Nearly all, if not all, of the domestic refrigerators, the operation of which depends upon supplying heat instead of

mechanical compression, use ammonia. This class includes a few electric refrigerators of unusual type, and all of the gas-fired refrigerators. The escape of the refrigerant from the more commonly used household refrigerating systems would, therefore, be at once made evident by its odor.

Newspaper headlines and statements to the effect that the fatalities in Chicago were caused by "gas refrigeration" without doubt had reference only to the fact that refrigerants are gases. "Illuminating" or fuel gas was in no way involved.

The high volatility of all practicable refrigerants makes it quite improbable that enough of these substances could be retained in food stored in the refrigerator to be harmful.

Methods for eliminating the danger from methyl chloride systems are being studied. It would be premature to say whether the end will be accomplished by replacing methyl chloride entirely by other refrigerants, by adding something which will give the refrigerant a sufficiently powerful odor, or by so improving the mechanical construction of the equipment that leakage will not occur where the gas might enter rooms in which people live.

It should be recognized that the number of serious accidents from household refrigerating systems has been small in comparison with the number of such systems in use, and improvements may be expected which will much reduce the small hazard that does exist.

(*U. S. P. H. S.*)

FACTS TO REMEMBER ABOUT CANCER.

There is much that we do not understand about cancer, but in most instances, if appropriate treatment be begun as soon as cancer is recognizable, it can be cured.

In Boston today facilities for the early recognition of cancer and for appropriate treatment are available to everyone regardless of financial means.

In some rare types of cancer a growth may be malignant practically from its start, but in most instances it is some long-standing, localized irritation, sore, growth, or other local abnormality which becomes cancerous.

In the present state of our knowledge, therefore, the prevention of cancer depends upon prompt action in seeking medical advice by every person who notices local enlargements or thickenings which do not promptly disappear, local sores, no matter how small, which do not quickly heal, or unnatural bleeding or discharges which may tend to disappear and then reappear.

TO PHYSICIANS.

Have you attended any births during the calendar year 1929, or any previous year, wherein you failed to make a return of the births to the City Registrar?

The registration of births is of vital importance for its value to both the child and its parents, and for the record of your city in its standing among the cities of the country and the world with respect to its infant mortality rate.

There are many important instances where a birth certificate is found to be of value, especially in later life, and when it has not been reported much embarrassment is caused not only to the individual concerned but to the physician who was in attendance at the birth. We know that a birth certificate is necessary many times during life, and when we need it there is nothing that can replace it; it becomes invaluable. A birth certificate is requested in many cases, some of which are as follows:

Evidence of age on entering school; inheritance of property; proof of age, relationship, and legitimacy; proving of age of consent; marriage licenses (in some instances); passports; employment or working certificates; entrance into military, naval, and civil service, and often in private employment; in voting; jury service; administration or settlement of estates; relations of guardians and wards.

Full and Complete Birth Registration Insures a Lower Infant Mortality.

Doctor, look over your records of confinements, and report to the City Registrar any births you have thus far failed to report this year. You will then be not only complying with the law, but fulfilling an obligation that is due the child, its parents, and the Commonwealth. If you have any doubt as to any such birth, mail a duplicate to the City Registrar, and so mark it.

FRANCIS X. MAHONEY, M. D., Health Commissioner.
*EDWARD W. McGLENEN, City Registrar.

LAW ON BIRTH REPORTING.

Chapter 46, General Laws, section 3: Every physician, or hospital medical officer registered under section 9 of chapter 112, shall keep a record of the birth of every child in cases of which he was in charge, showing date and place of birth, the name, if any, of the child, its sex, color, the name, age, birthplace, occupation and residence (including the street number, if any, and the ward number, if in a city) of each parent, the maiden name of the mother and the name of the physician or officer, if any, personally attending the birth. If the child is illegitimate, the name of and other facts relating to the father shall not be set forth except upon written request of both the father and the mother. Said physician or officer shall, within fifteen days after such birth, mail or deliver to the clerk or registrar of the town where such birth occurred, a report stating the facts herein above required to be shown on said record and also the said written request, if any; provided that if said report is not made within forty-eight hours after such birth, said physician or officer shall, within forty-eight hours, mail or deliver to said clerk or registrar a notice stating the date and place of birth, the street number, if any, the ward number, if in a city, and the family name, upon presentation to him of a certificate of the town clerk stating that any such birth has been duly reported, the town treasurer shall pay to such physician or officer a fee of 25 cents for each birth so reported.

Any physician or any such officer violating any provision of this section shall forfeit not more than twenty-five dollars.

*Deceased since this circular was issued.

THE USE OF BACTERIOPHAGE.

Equipped with a brand new weapon against disease, scientists have failed to get the hoped-for results with it because they have not known exactly how to use it. Bacteriophage, the potent germ killer, discovered by the French-Canadian, Dr. F. d'Herelle, now a Yale professor, gave promise of being the world's greatest disease-conqueror. It has fallen short of fulfilling this promise because the men who had to use it have not understood it well enough to get uniformly good results.

The age of the material, the method of administration and the amount of the dosage are points that must be settled in order to get the most successful results with this new weapon, one of its advocates, Dr. N. W. Larkum, of the Michigan Department of Health, told a group of fellow scientific men, at a meeting held in Indianapolis on October 18. The group to which he spoke was composed of men who have devoted themselves to the study of disease germs and means of combating them. This group is an informal organization, without any name, which meets several times a year in order to exchange views and notes of progress on the members' work.

Bacteriophage kills germs in a test tube and actually dissolves them. The hope of its discoverer and sponsors is that it will do the same thing to germs in the human body. In some cases it has killed the germs that were attacking the body, in others it has failed to do so. Doctor Larkum believes that the failures occur when the phage is used incorrectly, through ignorance of the best conditions for it to do its work.

Possibly the phage is potent only at a certain stage of its development. Up to now, the age of the material has not been given any consideration. The method of administration has been chosen with a view to getting the stuff into contact with the bacteria. Doctor Larkum suggested that it may be better to bring the material into contact with the susceptible tissues of the body, in order to make them immune to attacks of the disease germs and thus check the spread of the germs through the body. The matter of how large a dose to give also needs to be determined scientifically. "At present the selection of the dosage is entirely arbitrary, based upon some success attending a given dose. It is entirely logical to conclude that as many failures have been due to excessive dosage as have been due to an insufficient amount. Until further light has been shed upon these various factors in bacteriophage therapy, one is scarcely justified in condemning the method."— *Science.*

Health cannot be bought with money. It must be paid for in right living and good habits.

SUMMARY OF WORK, JANUARY, 1930.

ADMINISTRATION DIVISION.

Prosecution	1	Personnel:	
Legal notices	103	Provisional appointments	4
Settlements:		Permanent appointments	3
Total cases	152	Temporary appointment	1
Notices	114	Transfer	1
Bills	38	Leave of absence	1
Forcible removal	1	Resignation	1
		Retirement	1

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	1,143	Garbage transportation	39
Denatured alcohol	4	Dumps approved	30
Hen licenses approved	4	Dump disapproved	1
Hen license refused	1	Milk	118
Manicure-massages granted	133	Pedlers	27
Ice cream manufacturer	1	Stable permit, temporary, approved	1
Ice cream dealers	33	Sausage manufacturing	1
Grease	2	Undertakers	2
Day nurseries	5		

MEDICAL DIVISION.

Reported cases	2,471	Visits:	
Nonresidents	94	By V. D. investigator	293
Deaths investigated	42	By medical inspectors to cases of communicable disease	726

BACTERIOLOGICAL LABORATORY DIVISION.

Diphtheria	1,339
Tuberculosis	445
Typhoid	33
Gonorrhea	1,035
Gonorrheal ophthalmia	56
Syphilis	1,215
Other examinations *	228
Bacteriological examinations of milk	677
Bacteriological examination of ice cream	1
Dark field	2
Genito urinary T. B.	15
Malaria	3
Milk bottles examined	40
Caps for milk bottles examined	76
Swimming pools examined	80

* Cultures for virulence, 3; urine for eberthella typhi, 6; feces for eberthella typhi, 6; urines for analyses, 208; stools for shiga bacteria, 1; cookies for organisms, 1; lamb for organisms, 1; apple pie for organisms, 1; devilled ham for organisms, 1.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is a survey made of milk sold in Boston by wagon dealers and chain stores during January, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk—Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK—PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.65	3.90	24,000
Antetomasso, Peter.	12.90	4.10	11,000
Bancroft, Hugh *	14.68	5.30	11,000
Brandley, T. J. & P. J.	12.80	3.95	50
Buxton, William E.	14.52	5.05	7,000
Casey, James D.	12.68	4.00	35,000
Cashin, J. F.	12.55	3.93	11,000
Chapin, George.	12.82	4.00	13,000
Clark, Levi.	12.42	3.86	9,000
Corkery, J. J.	12.54	3.82	26,000
Cosgrove, M. S.	12.85	3.85	23,000
Daley, John.	12.69	3.92	11,000
Dean, Louis W.*	13.10	4.34	15,000
Deerfoot Farms Company.	12.88	4.31	9,000
Denehy, Timothy.	12.65	3.93	7,000
Driscoll, William B., Company.	12.52	3.92	11,000
Edgerly, F. C.	12.81	4.00	10,000
Elm Spring Farm Company.	12.33	3.72	12,000
Ferguson, Malcolm D.	12.66	3.90	15,000
Garfield, Mason.	15.38	5.90	8,000
Garvin, Charles.	13.45	4.58	800
Giroux, J. E. & H. J.	12.72	3.87	15,000

*Milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Griffin, Joseph L.	12.72	4.84	15,000
Gushee, C. W.	12.88	3.95	13,000
Hampden Creamery Company	12.88	3.72	39,000
Herlihy Brothers, Inc.	12.51	3.76	13,000
Hickey, J. B.	12.31	3.80	13,000
Holden, J. E.	12.55	3.89	13,000
Hood, H. P., & Sons, Inc.	12.45	3.85	19,000
Hutchinson, F. T.	12.46	4.13	19,000
Jones, W. T.	13.19	4.30	24,000
Kendall Brothers	12.74	3.97	13,000
Kingston Brothers	13.04	4.17	13,000
Knapp, George J.	12.85	3.83	8,000
Lang Brothers	12.81	3.93	9,000
Larsson, Charles	12.38	3.63	15,000
Lyndonville Creamery Association	12.88	4.06	10,000
Manning, Harriet	12.37	3.79	11,000
McAdams, J. F., & Brothers, Inc.	12.72	3.88	13,000
McKernan, John	12.77	3.89	8,000
Munchback, Albert W.	12.35	3.60	19,000
New England Creamery Products Company *	12.69	4.06	14,000
Robinson, A. J.	13.26	4.29	17,000
Schuster, Adam	12.58	3.90	17,000
Seven Oaks Dairy Company	12.86	3.87	14,000
Shick, Jacob	12.37	3.50	26,000
Somerset Farms Milk Company	12.33	3.75	11,000
Sterling Farms Milk Company	12.51	3.81	9,000
Stone, H. L.	12.18	3.80	9,000
Stuart, W. E., Company	12.56	3.75	20,000
Turner Centre System	12.56	3.89	11,000
United Farmers' Co-operative Creamery Association, Inc.	12.97	4.09	8,000
Walker-Gordon Laboratory Company *†	12.44	3.90	50
Weiler, E., & Sons	13.02	4.08	10,000
Westwood Farms Milk Company	12.72	3.90	10,000
White Brothers	12.68	3.93	11,000
Whiting Milk Companies	12.41	3.79	14,000
Whittemore, W. D.	12.99	4.00	17,000
Williams, E. C.	12.86	4.28	11,000
Wiswall, Granville A.	12.67	4.05	14,000
Woodland, Charles L.	12.62	3.90	8,000

* Milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Kind of Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.34	3.87	19,000
M. Brown & Sons.....	Whiting Milk Companies...	12.41	3.87	13,000
Cloverdale Company, The.....	Turner Centre System.....	12.45	3.87	10,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.58	3.80	15,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Company.	12.59	4.05	13,000
Morgan Brothers Company *...	New England Creamery Products Company.	12.84	4.28	14,000
M. Winer Company.....	M. Winer Company.....	12.88	4.12	14,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.49	4.50	8,000
Cosgrove, M. S.....	13.55	4.58	20,000
Dean, Louis W.*.....	13.20	4.40	10,000
Elm Spring Farm Company.....	12.90	4.18	9,000
Griffin, Joseph L.....	13.48	4.51	12,000
Herlihy Brothers, Inc.....	12.67	4.30	7,000
Hood, H. P., & Sons, Inc.....	12.63	4.16	7,000
Jones, William T., Company.....	13.13	4.30	11,000
McAdams, J. F., & Brothers, Inc.....	12.89	4.30	7,000
Robinson, A. J.....	13.66	4.63	12,000
Seven Oaks Dairy Company.....	13.32	4.35	7,000
Sterling Farms Milk Company.....	12.77	4.17	19,000
Turner Centre System.....	13.31	4.50	7,000
Weiler, E., & Sons.....	13.24	4.14	12,000
White Brothers.....	12.94	4.50	9,000
Whiting Milk Companies.....	12.58	4.14	9,000
Woodland, Charles L.....	13.69	4.70	10,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Raw milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	13.15	4.10	1,600
Hood, H. P., & Sons, Inc.	Own	14.37	5.28	1,800
New England Creamery Products Company.	Bellows Stock Farm	13.00	4.15	1,900
Turner Centre System	Alta Crest	13.16	4.30	2,200
Walker-Gordon Laboratory Company.*	Own	12.61	4.02	4,500
Whiting Milk Companies	Hampshire Hills	13.84	4.80	1,500

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	12.22	3.60	100
Hood, H. P., & Sons, Inc.	Own	13.23	4.30	50

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	366
Milk from stores	1,052
Miscellaneous	6
Vinegar	66
Ice cream	2
Samples referred to Bacteriological Laboratory for examination:	
Bottles	40
Caps	76
Milk	677
Ice cream	1
Rinse water	1

DAIRY DIVISION.

Total services	2,401	Total cattle inspected	3,886
Dairies inspected	225	Inspections of milk plants and licensed dealers	274
Scoring above 50 *	164	Bacteriological examinations	480
Scoring below	61	Country creamery inspection	22
With milk rooms	184	Sediment tests	1,386
Without milk rooms	41		
Inactive	11		

* Passable mark.

FOOD INSPECTION DIVISION.

January, 1930.

District inspections	2,471
Reinspections	236
Market inspections	1,207
Terminal inspections	323
Vehicle inspections *	3,876
Stand inspections	1,666
Complaints	24
Notices to abate	117
Condemnations	2,728 pounds
Sample taken	1
Pedler Service:	
Numbers assigned	35
Licenses certified	27
Vehicles approved	460
Licenses to remove bones	51

* This represents weekly inspections by four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	4,161	Parts condemned	1,113
Calves inspected	3,357	Animals condemned	49
Swine inspected	4,224	Total of meat condemnations (pounds)	16,881
Sheep inspected	29		

SANITARY DIVISION.

Original inspections	2,064	Complaints investigated	384
Causes for action found	1,660	Nuisances abated	1,580
Reinspections	5,280	Routine inspections	3,398
Legal notices served	92		

DAY AND NIGHT CLINICS MAINTAINED BY THE HEALTH DEPARTMENT FOR THE EXAMINATION OF TUBERCULOSIS SUSPECTS.

The Boston Health Department employs an X-ray expert, a technician, and staff of physicians, who are in service at the clinics in all of the Health Units, where facilities are provided to give both day and evening service in each section of the city for the complete examination of incipient or potential cases of tuberculosis.

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	16	138	100	238	29	32	61
East Boston	12	71	75	146	14	17	31
North End	13	53	78	131	8	4	12
West End	13	41	77	118	4	3	7
South Boston	13	56	66	122	10	8	18
Boston Dispensary	9	31	34	65	12	14	26
Brighton	8	12	12	24	3	2	5
Charlestown	9	37	62	99	9	25	34
Codman Square	13	84	89	173	17	9	26
Hyde Park	9	60	36	96	5	3	8
Roxbury	4	9	33	42	—	2	2
Arcadia Street	4	67	48	115	11	16	27
Totals	123	659	710	1,369	122	135	257

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	37	22	32	182
East Boston	17	6	—	42
North End	7	3	—	85
West End	13	3	—	—
South Boston	48	9	125	71
Boston Dispensary	16	6	—	—
Brighton	1	3	—	—
Charlestown	16	6	—	15
Codman Square	13	8	—	—
Hyde Park	4	4	—	—
Roxbury	2	3	—	—
Arcadia Street	22	13	—	—
Totals	196	86	157	395

HEALTH UNIT SOLARIA.

	Number of Children Seen.	Number of Children Inspected.	Number of Clinics.
East Boston	30	7	3
North End	107	23	5
South Boston	75	51	7
Charlestown	72	12	3
Roxbury	25	23	3
	309	116	21

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING JANUARY, 1930.

Classification.	Number.	Percentage.
After death	6	17.65
Seven days or less	5	14.71
Eight to fourteen days, inclusive	—	—
Fifteen to twenty-one days, inclusive	1	2.94
Twenty-two to thirty-one days, inclusive	2	5.88
Within First Month. (Total)	14	41.18
Within second month	3	8.82
Within third month	2	5.88
Within fourth month	—	—
Within fifth month	2	5.88
Within sixth month	2	5.88
Within seventh month	—	—
Within eighth month	—	—
Within ninth month	—	—
Within tenth month	—	—
Within eleventh month	—	—
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	23	67.64
Within second year	3	8.82
Within third year	—	—
More than three years	8	23.53
Grand totals	34	99.99

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF JANUARY, 1930.

Public Sanatoriums.	Admitted.	Discharged.
Boston Sanatorium	42	12
North Reading State Sanatorium	5	3
Lakeville State Sanatorium	1	1
Rutland State Sanatorium	4	6
Westfield State Sanatorium	3	3
Tewksbury	4	—
Totals	59	25

Private Sanatoriums.	Admitted.	Discharged.
Doctor Lapham's Sanatorium	2	1
Plymouth County Sanatorium	—	—
Channing Home	—	—
United States Veterans' Hospital	9	1
Doctor Crane's Sanatorium	—	1
Totals	11	3

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, January, 1930.

Inspections	464
Physical examinations	501
Schick tests given	992
Toxin-antitoxin administrations	180
Toxoids at Child Health Conferences	185
Toxoids at parochial schools	244
Vaccinations	128
Vaccination certificates issued	40
Day nursery visits	25
Parochial school visits	47
Conferences	30

Report of Child Health Conferences, January, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	168	40	208	22	2	24	4	52
31 Lincoln street, Brighton	83	5	88	10	—	10	5	18
Charlestown Municipal Building	286	22	308	26	3	29	8	39
Codman Square Library	299	48	347	36	—	36	8	43
Columbia Road Municipal Building	242	17	259	28	2	30	8	32
1 Arcadia street, Dorchester	293	19	312	32	3	35	9	35
East Boston Health Unit	262	24	286	57	3	60	9	32
Hyde Park Municipal Building	126	18	144	16	3	19	9	16
Curtis Hall, Jamaica Plain	185	13	198	32	1	33	4	50
41 North Margin street	200	30	230	29	4	33	9	26
Roslindale Municipal Building	218	37	255	31	4	35	4	64
Children's Hospital	100	9	109	11	2	13	4	27
1049 Columbus avenue	261	24	285	29	5	34	9	32
Roxbury Health Unit	413	36	449	59	13	72	13	35
133 Dorchester street, South Boston	275	47	322	55	9	64	9	36
122 Tyler street	89	14	103	6	—	6	4	26
Shawmut Avenue Municipal Building	149	11	160	21	—	21	4	40
57 East Concord street	221	19	240	36	1	37	5	48
17 Blossom street	256	34	290	19	—	19	9	32
Totals	4,126	467	4,593	555	55	610	134	36

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, JANUARY, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	2	2	1	5	5
31 Lincoln street, Brighton	2	1	—	3	2
Charlestown Municipal Building	—	—	—	—	9
Codman Square Library	37	24	18	79	15
Columbia Road Municipal Building	7	3	3	13	16
1 Arcadia street, Dorchester	18	11	7	36	10
East Boston Health Unit	—	—	—	—	2
Hyde Park Municipal Building	—	—	—	—	3
Curtis Hall, Jamaica Plain	4	1	—	5	6
41 North Margin street	—	—	15	15	6
Roslindale Municipal Building	—	1	2	3	3
Children's Hospital	3	2	2	7	9
1049 Columbus avenue	2	4	2	8	30
Roxbury Health Unit	21	22	24	67	15
133 Dorchester street, South Boston	—	—	—	—	1
122 Tyler street	1	—	—	1	5
Shawmut Avenue Municipal Building	9	11	8	28	2
57 East Concord street	1	4	1	6	6
17 Blossom street	—	—	—	—	1
Totals	107	86	83	276	146

REPORT OF TOXOID ADMINISTRATIONS, JANUARY, 1930.

At parochial schools		244
At Child Health Conferences at the following units		185
Charlestown	51	
East Boston	44	
North End	39	
South Boston	1	
West End	50	
Total		429

DENTAL ACTIVITIES AT HEALTH UNITS, JANUARY, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
Number of cases seen	585	561	419	546	683	519	661	3,974
Number of treatments:								
By dentists	498	712	658	629	787	496	742	4,522
By hygienists	199	167	216	130	140	121	216	1,189

Referred from Parochial schools; public schools; roofs; T. B. contacts.

CO-OPERATIVE HEALTH UNIT REPORT, JANUARY, 1930.

	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
BOSTON DISPENSARY:							
Calls by district physician	.....	55	.....	85	1	58	199
BOSTON LYING-IN HOSPITAL:							
Number of prenatal clinics	4	4	4	5	5	.....	22
Attendance	63	55	14	92	46	.....	270
New cases	21	15	1	26	17	.....	80
COMMUNITY HEALTH ASSOCIATION:							
Homes visited	3,062	1,780	2,364	2,418	2,767	1,592	13,983
Cases referred	210	78	238	4	125	102	757
Diseases reported	.....	1	.....	6	8	2	17
Number of mothers' club meetings	4	4	4	5	5	4	26
Attendance	32	69	63	52	60	56	332
FAMILY WELFARE SOCIETY:							
Number of staff meetings	4	.....	.....	4	4	.....	12
Attendance	36	.....	.....	33	42	.....	111
CHILDREN'S HOSPITAL:							
Infantile clinics	2	.....	4	4	4	.....	14
Attendanace	16	.....	36	42	23	.....	117
New cases	.....	.....	.....	.....	.....	.....	.....
STATE DEPARTMENT OF MENTAL HYGIENE:							
Number of clinics	.....	.....	.....	.....	.....	4	4
Attendance	.....	.....	.....	.....	.....	39	39
New cases	.....	.....	.....	.....	.....	10	10
AMERICAN RED CROSS:							
Home nursing classes	.....	.....	.....	4	.....	3	7
Attendance	.....	.....	.....	92	.....	24	116
MEETINGS OF BOY SCOUTS	4	.....	.....	.....	.....	.....	4
Attendance	81	.....	.....	.....	.....	.....	81
EAST BOSTON MEDICAL SOCIETY:							
Number of meetings	1	.....	.....	.....	.....	.....	1
Attendance	37	.....	.....	.....	.....	.....	37
HEALTH DEPARTMENT:							
Refraction Service:							
Number of diagnosis	.....	125	.....	.....	.....	.....	125
New glasses recorded	.....	2	.....	.....	.....	.....	2
New cases	.....	30	.....	.....	.....	.....	30
Nose and Throat Service:							
Number of clinics	.....	.....	.....	.....	.....	3	3
Attendance	.....	.....	.....	.....	.....	196	196
Operations recorded	.....	.....	.....	.....	.....	86	86
Mothers' club meetings	1	1	1	1	.....	.....	4
Attendance	7	22	8	14	.....	.....	51

NURSING SERVICE.

REPORT FOR JANUARY, 1930.

HOMES VISITED			15,508
CHILD HYGIENE:			
Visits to new cases		1,285	
Visits to old cases		8,337	
Included are:			9,622
Wrong addresses	85		
Not seen *	712		
Absent visits	797		
COMMUNICABLE DISEASES:			
Visits to new cases		1,557	
Visits to old cases		2,605	
Included are:			4,162
Wrong addresses	48		
Not seen *	142		
Absent visits	190		
Ophthalmia visits	178		
	368		
TUBERCULOSIS:			
Visits to new cases		225	
Visits to oldcases		4,379	
Included are:			4,604
Wrong addresses	36		
Not seen *	391		
Absent visits	427		
Positive case visits	2,085		
Contacts case visits	1,529		
Suspects case visits	563		
	4,604		
MISCELLANEOUS VISITS:			
Infant death investigations		104	
Maternal death investigations		6	
Patients accompanied to hospital		6	
Visits to day nurseries		45	
Visits to parochial schools		551	
			712
Total number of visits			19,100

	Hrs.	Min.
Hours in station by nurses	3,777	
Hours at baby and preschool conferences	1,723	15
Hours at tuberculosis clinics	926	35
Total number of hours	6,426	50

* All calls recorded as "not seen" represent visits made to the homes of the patients but the patients were out at the time of the visits. These calls are always repeated.

A WARNING.

This is the season of the year when fatalities are most likely to occur from carbon monoxide poisoning, caused from running automobiles in closed garages. It is well to remember that the gas from the exhaust is such a quick-acting poison that its victim rarely has time to save himself. *Be sure that the doors are open while you are running your automobile in the garage.*

VITAL STATISTICS, JANUARY, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING JANUARY, 1930, WITH COMPARATIVE FIGURES FOR JANUARY, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	**984**	1,588	—604	**14.56**	23.66	—9.10
Nonresidents deducted	**780**	1,369	—589	**11.54**	20.40	—8.86
By Age:						
Under one year	**118**	133	—15	**1.74**	1.98	—.24
One year to four years, inclusive	**38**	71	—33	**.56**	1.06	—.50
Sixty years and over	**421**	782	—361	**6.23**	11.65	—5.42
Infant and Maternal Mortality:						
a. Total registered live births	**1,344**	1,296	+48	**20.02**	19.31	+.71
b. Registered stillbirths	**33**	38	—5	**.49**	.57	—.08
Stillbirths per 1,000 live births and stillbirths	—	—	—	**23.96**	28.48	—4.52
c. Deaths of mothers from causes incident to childbirth	**11**	6	+5	**.16**	.09	+.07
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	**8.00**	4.50	+3.50
d. Deaths in first year per 1,000 live births	**118**	133	—15	**87.80**	102.62	—14.82

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	**38**	42	—4	**56.2**	62.6	—6.4
Homicides	**1**	—	—1	**1.5**	—	+1.5
Suicides	**16**	9	+7	**23.7**	13.4	+10.3
Automobile accidents* (death in Boston)	**6**	8	—2	**8.9**	11.9	—3.0
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	**7**	18	—11	**10.3**	26.8	—16.5
Broncho-pneumonia	**78**	205	—127	**115.1**	305.4	—190.3
Cancer	**122**	131	—9	**180.5**	195.2	—14.7
Cirrhosis of the liver	**15**	5	+10	**22.2**	7.4	+14.8
Diabetes mellitus	**21**	33	—12	**31.1**	49.2	—18.1
Diarrhea and enteritis (under two years)	**7**	16	—9	**10.3**	23.8	—13.5
Degenerative Diseases, So Called:						
Arteriosclerosis	**30**	39	—9	**44.4**	58.1	—13.7
Cerebral hemorrhage	**55**	75	—20	**81.4**	111.7	—30.3
Cerebral softening	—	—	—	—	—	—
Heart disease	**181**	360	—179	**267.7**	536.4	—268.7
Nephritis, chronic	**77**	102	—25	**113.9**	152.0	—38.1

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, JANUARY, 1930.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis.....Cases..	—	—	—	—	—	—
Deaths.	—	—	—	—	—	—
Cerebrospinal meningitis.....Cases..	3	3	—	4.4	4.5	—.1
Deaths.	2	4	—2	2.9	5.9	—3.0
Diphtheria.....Cases..	139	145	—6	205.6	216.0	—10.4
Deaths.	1	6	—5	1.5	8.9	—7.4
Influenza.....Cases..	18	1,968	—1,950	26.6	2,932.2	—2,905.6
Deaths.	1	78	—77	1.5	116.2	—114.7
Measles.....Cases..	165	55	+110	244.1	81.9	+162.2
Deaths.	1	1	—	1.5	1.5	—
Pneumonia (lobar).....Cases..	201	449	—248	297.3	669.0	—371.7
Deaths.	43	157	—114	63.6	233.9	—170.3
Scarlet fever.....Cases..	369	312	+57	545.8	464.9	+80.9
Deaths.	6	3	+3	8.9	4.5	+4.4
Tuberculosis (pulmonary).....Cases..	152	136	+16	224.8	202.6	+22.2
Deaths.	34	71	—37	50.3	105.8	—55.5
Tuberculosis (other forms).....Cases..	26	20	+6	38.5	29.8	+8.7
Deaths.	5	5	—	7.4	7.4	—
Typhoid fever.....Cases..	2	1	+1	2.9	1.5	+1.4
Deaths.	—	1	—1	—	1.5	—1.5
Whooping cough.....Cases..	364	130	+234	538.5	193.7	+344.8
Deaths.	1	2	—1	1.5	3.0	—1.5

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 19. BOSTON, MARCH, 1930. NO. 3

MEASLES IN BOSTON.

While the mortality rate from measles in Boston is low in comparison with the number of cases, it may be safely said that the deaths from measles in Boston exceed those from diphtheria.

The recorded deaths from diphtheria in Boston approach very closely the number of deaths which actually occur from the disease. In fatal cases of measles death results almost always here from pneumonia and if measles has not been previously reported pneumonia alone is likely to appear on the death certificate.

There are certain special factors which make it possible to estimate roughly the proportion of actual cases of measles in the city which are coming to official knowledge and being made a matter of statistical record. A few years ago it appeared that about one third of our cases of measles were being reported or discovered. As the result of special efforts to secure the cooperation of agencies whose representatives in the course of their vocations go into peoples' homes the proportion of officially recorded cases of measles was raised perhaps to 50 per cent of the cases occurring but it is doubtful if this proportion is being maintained.

There is probably no disease so likely to be recognized by people generally from its diagnostic symptoms as measles. In

consequence a physician will not be called for diagnostic reasons but only for treatment if unexpected and alarming symptoms are seen.

The provision of Massachusetts law which makes a householder as well as physician accountable for the reporting of a contagious disease of whose existence the householder "knows," does not operate to secure better reporting.

In attempting to hold a householder legally liable for failure to report a contagious disease, diagnostic skill cannot be presumed as with a physician and consequently this provision of the law is practically enforceable. At the same time it is generally understood that "it is against the law" not to notify "The Board of Health" of cases of suspected contagious disease and in the event of failure to report such a case, a person who thinks that he or she may be prosecuted, may be expected to evade any incriminating admissions and to regard as a *personna non grata*, so far as admission to the home is concerned, anybody who acquires a reputation of reporting cases of sickness to the "Board of Health."

The value of reporting as an aid to the control of measles depends on when it is done. A physician's report of a case of measles seldom reaches the Health Department until after the eruption is out and very often not until after a physician has been called to attend a secondary case in the household. If a report happens to be made of a primary case, this means usually that all the non-immunes in the family have been exposed to the disease for four or five days or longer during the period of its greatest infectivity. It is axiomatic that the danger of the spread of any contagious disease is directly proportional to the amount of infective material which the patient is giving off. The reputation of measles for contagiousness is to be accounted for by the profuseness of infective secretions in the prodomal stage and not by the virulence or viability of the infective agent.

Any non-immune who has lived in the same family with a case of measles during the prodromal stage may be assumed to be infected.

In final analysis, the value of official knowledge of the existence of a case of measles depends entirely on what use is made of such information in handling susceptible contacts with view to their own welfare and in the way of their quarantine and the protection of others from the earliest date at which such contacts may possibly become infective. The pretence of controlling the spread of measles by quarantining frank cases of the disease is plain humbug. The supposed success of this procedure is due to the immunity of contacts.

There are other factors more important than reporting which enter into the problem of reducing measles mortality.

There is no evidence of the acquisition on the part of our population of the same sort of natural immunity to measles as occurs with respect to diphtheria, scarlet fever and tuberculosis. Natural immunity to measles appears to be as rare as natural immunity to smallpox. Our studies indicate that anybody who lives in Boston may expect to acquire immunity sooner or later from an actual attack of measles, although the case may be of that abortive type which is likely to pass unrecognized except when found associated with frank cases of measles. The immunity which the infant acquires from its immune mother may be expected to disappear within the first year of life.

Measles is endemic in Boston. Cases are reported from every part of the city every month in the year. Cases reach their maximum in the spring, usually in April. Boston is composed of several well separated districts. Measles does not tend to spread from South Boston to East Boston or from Dorchester to Charlestown. After measles has been prevalent in one of these districts for a year or two, there will be a local remission in the number of cases until a new crop of susceptible children come into existence — about four or five years. When the periodic immunizing process happens to occur in two districts the same year, the total cases for the year is unusually large.

While there is no evidence of the development in Boston of the same sort of natural immunity that is found to exist with respect to diphtheria and scarlet fever nevertheless something has been taking place to make measles less serious than in the past where it occurred in epidemic visitations instead of an endemic disease. Such an inference is justifiable from the unquestionable decrease in the present mortality as compared with the past. The type of the disease as ordinarily observed in Boston is indicative of a decreased virulence of the infective agent or an increased resistence on the part of the people if comparison be made with an epidemic among people who have not been constantly exposed to infection. Fatalities from an overwhelming toxemia are rarely seen in Boston. Deaths seldom occur except from a pneumonia which develops as a secondary infective process. Even with respect to the likelihood of development of such a secondary pneumonia in Boston there is a fact of practical importance to be noted.

According to the figures of officially recorded cases the maximum number of cases of measles, diphtheria and scarlet fever occur in children between five and six years old, the first year in school. In spite of the shortcomings of the reporting of scarlet fever and measles it would seem that the relative number of reported cases for the different ages could be accepted as indicative of what is

actually happening. With scarlet fever and diphtheria, the recorded deaths likewise reach their maximum at the age at which the maximum number of cases is reported and deaths for each age group correspond roughly with reported cases for that age. With measles this is not so. The maximum number of reported deaths from measles occurs between one and two years of age and so far as Boston is concerned the mortality from measles tends to decrease with age.

There are two practical ways of approach to the problem of reducing mortality from measles. Among persons from regions where measles was not endemic, the writer has seen on one occasion a mortality of 30 per cent and in another of 20 per cent in the hospital treatment of cases of measles. In both these instances, he saw the mortality among the same class of people drop to a fraction of 1 per cent after the adoption of methods of transportation to hospitals which reduced the chances of exposure of patients to chilling and the strict insistence on the exclusion from the hospital wards and the isolation in separate buildings of any case showing indications of pneumonia or other complications. A patient with influenza or with measles or an infected contact should be isolated for his own protection, quite as much as in the interest of others. It should be regarded as criminal to put a simple case of measles in the same ward with cases of pneumonia.

Another practicable way of reducing mortality from measles when it is virtually confined to children, as in Boston, is by immunizing the younger contacts in the family when an older child has gone out and contracted measles and brought infection into the home. It is apparent also that mortality from measles in Boston might be decreased by raising the age at which measles is contracted and it may be possible that ordinary quarantine procedure and other factors may be operating in this way. In 1916, Nicolle and Conseil published in France reports of their success in using the serum of convalescent patients for the prevention and treatment of measles. It was also brought out that the serum of any immune person had the power to modify an attack of measles if not to prevent it. In 1924, as appears in the report of the Boston Health Department for that year, it was demonstrated to be entirely practicable here in Boston to utilize the serum of mother's blood to protect the younger children in the class of families with which the Health Department was ordinarily called upon to deal. Medical Inspector James A. Keenan, who was assigned to this demonstration, devised a special and comparatively simple apparatus for the purpose of collecting the blood and separating and administering the serum. It was found that even when the serum was administered late in the period of

incubation a modified or abortive attack might be expected. It was also found that the whole blood of mothers might be employed satisfactorily for the same purpose as had been demonstrated by Doctor Park and the late Doctor Zingher whose pioneer work in New York we were following.

On the adoption by the Boston Health Department of the policy of using nurses for the control of the common contagious diseases, efforts to interest the public and the medical profession here in such means for the reduction of the measles mortality ceased.

In New York City, however, efforts to encourage the use of protective inoculations against the dangers of measles has been continued and a vast amount of practical experience has been accumulated under the direction of Doctor Park and others whose recommendations appear in the "Weekly Bulletin" of the Department of Health of New York City for January 25, 1930.

The New York experience shows that children exposed to measles who receive serum develop fewer cases of measles, while those receiving adult whole blood are more likely to have modified measles. In the former, an immunity is produced which may last a month; in the latter, the modified attack is practically without danger and a lasting immunity in thereby produced. Such permanent immunity is regarded as the more desirable for a very sensible reason to which the New York "Bulletin" calls attention. We are likely to lose sight of the inevitable consequence of the sort of success which we are aiming to secure by our methods of attempting to control some other diseases, as tuberculosis, for example. After pointing out what happens when a communicable disease is introduced in a population which has never been exposed thereto, the New York "Bulletin" says, "it is clear that there are grave objec-objections to any method which will entirely prevent measles, for this would lead to the gradual building up of a large population of non-immunes who would be decimated should the disease perchance be reintroduced.

The following technique for the collection and administration of the blood is advised.

"The most suitable donor is always one of the parents. The blood is collected in a sterilized glass syringe having a capacity of about thirty cubic centimeters, and is most readily drawn from a vein at the elbow. The skin about the donor's elbow is cleaned in the usual manner and may be disinfected with iodine. A piece of rubber tubing wound around the upper arm causes the vein to distend so that it may readily be pierced by the sterile needle attached to the syringe. Thirty cubic centimeters are withdrawn and half of the blood is then injected intra-muscularly into the child's right

buttock and the other half into the left buttock. Coming directly from the parents, no deleterious effects need be feared. If only a 20-centimeter syringe is available, two drawings of blood are made, each one 15 centimeters.

"While this dosage holds good for children under five years of age, it is advisable to use double the amount in older children. It must be borne in mind, however, that the object is not to prevent measles entirely, but to permit the development of a modified, milder type of the disease. For this reason, it is not advisable, even in older children who have been exposed to measles, to give more than 60 cubic centimeters of the parents whole blood."

THE NEW ENGLAND MEDICAL CENTER.

An important step in medical progress — the formation of the New England Medical Center, comprising three long established institutions, which are combining for the two-fold purpose of providing more adequate hospitalization for the needy sick, and of training more family doctors for New England communities — is taking place in Boston at the present time. The Boston Dispensary, the Boston Floating Hospital and the Tufts Medical School are the three participating institutions.

For the purpose of housing and financing the new medical center, a campaign for $1,500,000 has been launched and is now well under way, more than half of the needed amount already having been secured. Of the amount sought, approximately $1,000,000 will be used for new buildings and equipment, and extensive alteration of the present plants, and the balance of $500,000 will be available for endowment.

A unified building plan has been prepared to meet the new requirements of the medical center. The Boston Dispensary will be remodeled, its clinics rearranged, and increased laboratory, operating and X-ray facilities provided. A forty-bed hospital for babies and small children will be erected for the Floating Hospital, which will be rebuilt on land because of the additional months of service that can be given by a land hospital. A central building will be constructed for the joint use of the three institutions. This building will contain space for additional clinics, and eighteen-bed diagnostic hospital for adults, headquarters for medical students and teachers, a dormitory for nurses, and a heating plant, kitchen, laundry and dining room for the use of the entire group. The architects for the Center Building are, Andrews, Jones, Biscoe & Whitmore; for the Floating Hospital, Stevens & Lee; and for the Dispensary, Strickland, Blodgett & Law, with Alfred Kellogg as consulting engineer.

Although the three participating institutions will continue to maintain their separate identities, they will benefit vastly by the merging interests. They will share common laboratories, operating rooms, X-ray equipment and research facilities. They will have a single medical staff. They will avoid duplication of overhead expense in plant operation.

President Cousens of Tufts College has recently stated that the New England Medical Center, when completed, will have combined tangible assets and intangible value that will make it a $10,000,000 organization.

THE FUNCTION OF THE BOSTON BACTERIOLOGICAL LABORATORY.

With the development of medicine, and with the discovery that a great number of diseases are caused by micro-organisms which are readily transmitted from person to person if proper isolation of the infected is not practiced, it became essential to find means by which the presence or absence of parasites in certain diseases could be easily demonstrated and thus separate the sick or infected from the well or noninfected.

Boston was one of the first cities to recognize the importance of this proceedure and was one of the pioneers to establish a bacteriological diagnostic laboratory in 1898 for the benefit of the physicians and to citizens in general, free of charge.

At first the Boston physicians were loathe to lay much credence to this method of diagnosis and the patronage, therefore, was very small. Progress, however, can not be stunted, and this branch of health activities developed in leaps and bounds so that in less than one quarter of a century the diagnostic work increased from a total number of examinations of 7,000 in 1898 to close to 51,751 examinations in 1929.

It is of interest, however, that in spite of this tremendous increase in the number of examinations the percentage of positive specimens has decreased to a large extent, and with some diseases, especially typhoid fever and malaria, it has become almost negligible.

Another point of interest is that the type of specimens examined have changed considerably. During the first few years of the laboratory's existence most of the examinations were of diptheria cultures and sputum specimens. These have been greatly displaced by specimens of blood for the Wassermann test to determine the presence or absence of syphilis, and smears from the genito-urinary tract to determine the presence or absence of gonorrhea.

When one realizes that in addition to the above-mentioned activities the laboratory also has supervision over all the swimming pools, floating baths and beaches of the city, from which weekly examinations are made of the sanitary and bacteriological condition of the water, the trapping and examination of rats for Bubonic plague and considering the hundreds of queries which are answered weekly from physicians and citizens in general, and the numerous problems which a laboratory must solve in order to keep abreast with progress of time, it may truly be said that this branch of the Health Department is a healthy progressive institution. The physician, bacteriological worker and the public in general are always welcome and are assured of courteous treatment and any information available.

At present there are 2,000 physicians and close to seventy-five public or semipublic institutions utilizing and depending on the laboratory to aid them in their diagnoses and guide them in the treatment of their cases. Since the laboratory caters only to Boston physicians and institutions, and to outside physicians when their patients are Boston residents, one may readily realize that practically the entire medical profession values the laboratory as an aid, and avails itself of its services.

The Boston Bacteriological Laboratory does not limit its activity just to aid physicians in their work, it also acts as a sort of clearing house for the other divisions of the Health Department.

1. For the Milk Division it examines bacteriologically over 8,000 specimens of milk, cream and ice cream annually to determine the number of bacteria, as well as general infection of specimens submitted.

2. For the Bureau of Communicable Diseases it examined over 5,000 diphtheria cultures and carried out close to 200 virulence tests during the year in connection with Schick testing.

3. For the Food Division it examines all food specimens submitted, such as meat and meat products, fish and fish products, various kinds of canned vegetable foods, cereals, all kinds of beverages etc., to determine bacterial infection and general decomposition.

4. For the Sanitary Division it examines samples of water from wells, springs, etc., to determine the presence or absence of sewage pollution.

5. For the city veterinary it examines the brains of cats, dogs and other animals suspected to be suffering from rabies.

CITIZENS! WE ARE AT YOUR SERVICE!

WESTERN CREAM.

Commissioner of Agriculture E. H. Jones has issued from his office in Montpelier a statement dealing with the recent order of the Boston Board of Health barring western cream from the Boston market, which, he considers, is of vital interest to all milk producers in New England and especially Vermont dairymen, who furnish two thirds of the Boston supply of fluid milk and cream. One effect, he thinks, will be to put the New England cream market back on a normal basis in relation to the price of butter. His statement in full is as follows:

"The action on Saturday, February 8, by the officials of the Boston Board of Health canceling the permits under which western cream has been entering the Boston market is of the utmost importance and will have a far reaching effect on the dairy interests of New England. This ruling becomes effective February 15. The surplus cream produced in northern New England has of late competed in the Boston market with a large volume of western cream coming in at extremely low prices. While the exclusion of western cream will not affect butter prices it will undoubtedly restore the New England cream market to a normal basis in relation to the price of butter. This is purely a public health measure. The Boston Board of Health is desirous of receiving its supply of milk and cream from the New England milk shed to as great an extent as possible because this territory has been thoroughly covered by its farm inspection service.

"While the producer has sometimes regarded the inspection requirements as unnecessarily burdensome, the operation of these regulations has now proven a very definite protection to him. As Vermont supplies two-thirds of Boston's fluid milk and cream this State is more vitally affected by the ruling than any other. If the Vermont farmer desires to maintain the advantage he has hereby gained it is obvious that he must so regulate his production as to supply the Boston market at all seasons of the year with cream in sufficient volume and quality to meet all requirements."

—*Burlington Free Press.*

The defective child, unless corrected, becomes the defective man, and where correction in early life is possible, it may become well-nigh impossible in later years.

"Anything that touches the life of children — that deals with the beginning of life — cannot help being hopeful. He who helps a child helps humanity with a distinctness which no other help given to human creatures can possibly give."— *Phillips Brooks.*

PASTEURIZATION OF MILK.

It is interesting, it is instructive, and it is worthy of admiration to realize the meticulous care which is being exerted to produce as clean a milk as possible. Certified milk rarely comes, now, from tuberculous cattle; it is almost unheard of to have typhoid fever, scarlet fever or diphtheria occur as a result of its use; it rarely carries the hemolytic streptococcus, and many pains are now being taken to exclude Brucella abortus infection from the herds producing it. Nothing, however, unless it be sterilization by boiling, can take the place of pasteurization, and with milk supplies which are not certified by an aggressive and reliable commission pasteurization is a crying need.

If certified milk may continue to be sold raw, well and good; if exceptions cannot practically be made to universal pasteurization in this state, then let certified milk, also, be pasteurized. We may miss it in its raw state but we will not miss it for long. Meanwhile let us all stand firmly behind the request of the State Department of Health for new and advanced legislation. It is not drastic; it is not revolutionary; it simply asks for the provision that, within a reasonable period, all milk in cities and towns with a population of more than 5,000 shall be either pasteurized or from tuberculosis-free cattle.

The only objection to this request is that it does not go far enough. It asks for protection only against tuberculosis, and it leaves out of its reckoning, for purely practical reasons, the rural districts which need protection, even if they will not admit it, as much or more than do the cities. The time will come when all milk sold in this state in any quantity will be pasteurized, and then we can call ourselves a model commonwealth in this one particular. Until then we will continue to reiterate our slogan that all milk must be pasteurized, somewhat in the manner of the patriot Cato, who ended every speech with Carthago delenda est!— *Excerpts from New England Journal of Medicine, February 20, 1930.*

DANGER FROM FACE BITES BY DOGS.

The New York City Board of Health reports a death from rabies of a girl of five years.

The history of the case is pertinent. A police dog bit the child on the forehead July 9, 1929. Fuming nitric acid was applied to the wound in thirty minutes. Antirabic treatment was begun next day, and fourteen injections given. On August 20 the child was found to have rabies and she died the following morning.

The warning implied is the great danger from bites on the face by dogs.

THE NURSING MOTHER.

1. The mother should remain in bed at least ten days after confinement, and should not get up until advised to do so by her physician.

2. Keep the nipples and breasts clean. They should be washed gently with a solution of boric acid or cleaned boiled water, thoroughly dried, and kept clean and dry as possible after each nursing. Caked breasts or cracked nipples are the usual causes of breast abscesses.

3. The nursing mother must be free from anxiety, worry and excitement.

4. The diet for the nursing mother should be outlined by the physician or nurse and in accordance with the special needs of the case. The same diet does not often agree for all cases.

5. The diet should be mixed, plain and ample, and consist of light, nutritious, digestible foods, and prepared in an appetizing way. It is impossible to supply the proper amount of breast milk for the baby unless the mother is properly and plentifully fed.

6. Avoid alcoholic drinks and excessive amount of tea or coffee.

7. Drink plenty of good pasteurized milk, at least a quart a day.

8. Drink daily at least eight glasses of water that has been previously boiled and cooled.

9. Constipation should be carefully avoided. The bowels should move every day and be kept regular by eating laxative foods. Never take drugs or medicine for constipation unless by advice of your physician.

10. The first month after the baby is born moderate exercise for the mother out of doors is a good tonic. Walking is one of the best forms of exercise. However, never exercise to a point of fatigue. Begin moderately and increase amount as the strength increases. Guard most carefully against overtaxing the mother's strength.

11. A nursing mother needs abundance of sleep and rest, at least eight hours of sleep at night, with the windows open, and a rest period during the day.

12. Bathing daily in warm water is most desirable.

13. Outdoor life is the best form of recreation and amusement and should be simple and not exciting or tiring.

A happy, healthy, nursing mother means a happy and healthy baby.

"COMMON COLDS" AMONG CHILDREN.

One fifth of the deaths of children under one year of age are due to the so-called "common cold" and the complications following same. Much benefit can be derived from the recommendation that children should be kept away as much as possible from those who have sore throats, or running noses, or who cough, sneeze, etc.

SUMMARY OF WORK, FEBRUARY, 1930.

ADMINISTRATION DIVISION.

Prosecution	1	Personnel:	
Legal notices	105	Provisional appointments	2
Settlements:		Permanent appointments	2
Total cases	144	Temporary appointment	1
Notices	98	Transfer	1
Bills	46		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	1,115	Beverage	1
Denatured alcohol	7	Pasteurization of milk	1
Hen licenses approved	2	Garbage transportation	5
Lying-In Hospitals approved	3	Dumps approved	10
Manicure-massages granted	81	Milk	108
Ice cream dealers	42	Pedlers	34
Day nursery	1	Undertaker	1

MEDICAL DIVISION.

Reported cases	2,265	Visits:	
Nonresidents	93	By V. D. investigator	303
Deaths investigated	42	By medical inspectors to cases of communicable disease	619

BACTERIOLOGICAL LABORATORY DIVISION.

Diphtheria	974
Tuberculosis	382
Typhoid	38
Gonorrhea	898
Gonorrheal ophthalmia	59
Syphilis	1,085
Other examinations *	270
Bacteriological examinations of milk	717
Bacteriological examinations of ice cream	6
Dark field	3
Genito urinary T. B.	11
Malaria	2

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* Cultures for virulence 2; urine for eberthella typhi, 7; feces for eberthella typhi, 7; urines for analyses, 245; mushrooms for poison, 1; smears for meningicocci, 5; smears for Vincent's angina, 3.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during February, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.54	3.88	10,000
Antetomasso, Peter	12.87	3.97	11,000
Bancroft, Hugh *	14.49	5.20	9,000
Brandley, T. J., & P. J.	12.77	4.00	250
Buxton, William E.*	14.45	5.10	14,000
Casey, James D.	12.75	4.07	18,000
Cashin, J. F., & Co.	12.64	3.98	13,000
Chapin, George	12.67	4.05	10,000
Clark, Levi	12.25	3.83	22,000
Corkery, J. J.	12.49	3.78	16,000
Cosgrove, Martin S.	12.79	3.92	15,000
Daley, John	12.71	4.08	2,000
Dean, Louis W.*	13.85	4.80	6,000
Deerfoot Farms Company	13.00	4.24	21,000
Denehy, Timothy	12.99	4.08	6,000
Driscoll, William B., Company	12.62	3.90	10,000
Edgerly, F. C.	12.86	4.10	6,000
Elm Spring Farm Company	12.29	3.70	15,000
Ferguson, Malcolm D.	12.71	4.00	14,000
Garfield, Mason	15.29	5.90	700
Garvin, Charles	13.38	4.78	2,000
Giroux, J. E. & H. J.	12.55	3.68	17,000

*Milk from tuberculin tested cows

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Griffin, Joseph L.	12.78	3.90	12,000
Gushee, Chester W.	12.75	3.91	11,000
Hampden Creamery Company	12.64	3.75	16,000
Herlihy Brothers, Inc	12.52	3.79	14,000
Hickey, J. B.	12.28	3.80	22,000
Holden, John E	12.52	3.85	14,000
Hood, H. P., & Sons, Inc.	12.39	3.81	14,000
Hutchinson, Frank T.	13.13	4.38	11,000
Jones, William T., Company	12.97	4.20	6,000
Kendall Brothers	12.60	3.88	16,000
Kingston Brothers	13.25	4.25	12,000
Knapp, George J.	12.78	3.83	16,000
Lang Brothers	12.79	3.88	18 000
Larsson, Charles	12.22	3.45	18,000
Lyndonville Creamery Association	12.94	4.18	25,000
Manning, Harriet	12.45	3.85	4,000
McAdams, J. F., & Brothers, Inc.	12.57	3.89	11,000
McKernan, John	12.73	3.80	24,000
Munchback, Albert W.	12.39	3.65	12,000
New England Creamery Products Company *	12.79	4.14	16,000
Robinson, A. J.	13.38	4.37	23,000
Schuster, Adam	12.41	3.83	6,000
Seven Oaks Dairy Company	12.74	3.88	10,000
Shick, Jacob	12.56	3.88	10,000
Somerset Farms Creamery Company	12.86	3.90	11,000
Sterling Farms Milk Company	12.39	3.70	11,000
Stone, H. L.	12.75	4.16	10,000
Stuart, W. E., Company	12.49	3.78	10,000
Turner Centre System	12.47	3.82	25,000
United Farmers' Co-operative Creamery Association, Inc.,	12.92	4.11	10,000
Walker-Gordon Laboratory Company * †	12.55	3.90	75
Weiler, E., & Sons	12.84	3.98	13,000
Westwood Farms Milk Company	12.62	3.83	13,000
White Brothers	12.71	3.98	11,000
Whiting Milk Companies	12.35	3.76	11,000
Whittemore, W. D.	12.80	3.88	8,000
Williams, Edward C.	12.75	4.18	6,000
Wiswall, Granville A.	12.77	4.10	20,000
Woodland, Charles L.	12.46	3.90	11,000

* Milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied By	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.39	3.75	14,000
M. Brown & Sons.....	Whiting Milk Companies...	12.29	3.67	12,000
Cloverdale Company, The.....	White Brothers, Turner Centre System, and H. P. Hood & Sons, Inc.....	12.45	3.87	12,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.62	3.89	15,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Company.	12.97	4.06	9,000
Morgan Brothers Company *...	New England Creamery Products Company.	12.80	4.09	16,000
Winer, M., Company.....	M. Winer Company.....	12.93	4.11	52,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat, production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.61	4.58	11,000
Cosgrove, Martin S.....	13.98	4.95	20,000
Dean, Louis W.*.....	13.84	4.70	3,000
Elm Spring Farm Company.....	12.99	4.15	8,000
Griffin, Joseph L.....	13.49	4.48	8,000
Herlihy Brothers, Inc.....	12.55	4.20	6,000
Hood, H. P., & Sons, Inc.....	12.53	4.12	10,000
Jones, William T., Company.....	13.34	4.45	5,000
Lyndonville Creamery Association.....	13.50	4.50	9,000
McAdams, J. F., & Brothers, Inc.....	13.03	4.50	7,000
Robinson, A. J.....	13.72	4.70	25,000
Seven Oaks Dairy Company.....	13.14	4.10	8,000
Sterling Farms Milk Company.....	12.85	4.15	8,000
Turner Centre System.....	13.39	4.52	5,000
Weiler, E. & Sons.....	13.05	4.11	10,000
White Brothers.....	12.97	4.40	8,000
Woodland, Charles L.....	13.89	4.98	4,000
Whiting Milk Companies.....	12.73	4.20	11,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	14.17	5.10	2,500
Hood, H. P., & Sons, Inc.*	Own	13.46	4.50	1,600
New England Creamery Products Company.	Bellows Stock Farm	12.82	4.20	3,100
Turner Centre System	Alta Crest	12.92	4.00	1,800
Walker-Gordon Laboratory Company.*	Own	12.59	4.15	2,500
Whiting Milk Companies	Hampshire Hills	13.12	4.20	2,200

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	12.36	3.70	100
Hood, H. P., & Sons, Inc.*	Own	13.13	4.15	100

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	344
Milk from stores	960
Miscellaneous	9
Vinegar	67
Ice cream	7
Samples referred to Bacteriological Laboratory for examination:	
Drugs	1
Sausage	2
Meat	2
Mushrooms	1
Tonic	3

DAIRY DIVISION.

Total services	2,159	Total cattle inspected	3,512
Dairies inspected	200	Inspections of milk plants and licensed dealers	258
Scoring above 50 *	134	Bacteriological examinations	578
Scoring below	66	Country creamery inspection	23
With milk rooms	174	Sediment tests	1,095
Without milk rooms	26		
Inactive	3		

* Passable mark.

FOOD INSPECTION DIVISION.

February, 1930.

District inspections	3,301
Reinspections	350
Market inspections	1,346
Terminal inspections	339
Vehicle inspections *	3,631
Stand inspections	1,802
Complaints	28
Notices to abate	170
Condemnations	4,344 pounds
Samples taken	5
Pedler Service:	
Numbers assigned	40
Licenses certified	34
Vehicles approved	473
Licenses to remove bones	75

* This represents weekly inspections by four inspectors of about three hundred pedlers vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	3,380	Parts condemned	1,081
Calves inspected	4,154	Animals condemned	88
Swine inspected	3,726	Total of meat condemnations (pounds)	24,898
Sheep inspected	446		

SANITARY DIVISION.

Original inspections	2,192	Complaints investigated	463
Causes for action found	1,703	Nuisances abated	1,729
Reinspections	5,941	Routine inspections	3,835
Legal notices served	86		

APPOINTMENT OF SECRETARY IN THE BOSTON HEALTH DEPARTMENT.

Joseph A. Cahalan, for fifteen years connected with the Registry of Births, Marriages and Deaths, was appointed by Health Commissioner Mahoney as Secretary of the Boston Health Department on February 13, 1930.

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	15	122	135	257	28	28	56
East Boston	11	60	78	138	9	7	16
North End	12	42	76	118	8	4	12
West End	12	47	54	101	4	6	10
South Boston	12	55	70	125	7	13	20
Boston Dispensary	8	15	16	31	6	5	11
Brighton	8	12	10	22	2	—	2
Charlestown	8	27	57	84	6	21	27
Codman Square	12	81	84	165	9	4	13
Hyde Park	8	43	57	100	10	12	22
Roxbury	4	70	53	123	10	16	26
Arcadia Street	4	23	37	60	6	6	12
Totals	114	597	727	1,324	105	122	227

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	54	26	12	142
East Boston	13	8	—	36
North End	16	3	—	48
West End	12	5	—	—
South Boston	21	5	106	83
Boston Dispensary	5	4	—	—
Brighton	—	1	—	—
Charlestown	28	2	—	37
Codman Square	5	8	—	—
Hyde Park	15	6	—	—
Roxbury	48	9	—	14
Arcadia Street	6	6	—	—
Totals	223	83	118	360

HEALTH UNIT SOLARIA.

	Number of Children Examined.	Number of Clinics Visited.
East Boston	124	5
North End	120	4
South Boston	88	4
Charlestown	106	4
Roxbury	94	5
	532	22

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING FEBRUARY, 1930.

Classification.	Number.	Percentage.
After death	21	43.75
Seven days or less	2	4.17
Eight to fourteen days, inclusive	2	4.17
Fifteen to twenty-one days, inclusive	1	2.08
Twenty-two to thirty-one days, inclusive	3	6.25
Within First Month. (Total)	29	60.42
Within second month	5	10.42
Within third month	—	—
Within fourth month	1	2.08
Within fifth month	1	2.08
Within sixth month	—	—
Within seventh month	2	4.17
Within eighth month	—	—
Within ninth month	1	2.08
Within tenth month	—	—
Within eleventh month	—	—
Within twelfth month	1	2.08
Within First Year Preceding Death. (Total)	40	83.33
Within second year	3	6.25
Within third year	—	—
More than three years	5	10.42
Grand totals	48	100.00

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF FEBRUARY, 1930.

Public Sanatoriums.	Admitted.	Discharged.
Boston Sanatorium	43	17
North Reading State Sanatorium	5	—
Lakeville State Sanatorium	2	1
Rutland State Sanatorium	—	5
Westfield State Sanatorium	2	4
Tewksbury	3	—
Totals	55	27

Private Sanatoriums.	Admitted.	Discharged.
Doctor Lapham's Sanatorium	3	1
Plymouth County Sanatorium	1	1
Channing Home	—	—
United States Veterans' Hospital	11	11
Doctor Crane's Sanatorium	—	1
Totals	15	14

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, February, 1930.

Inspections	275
Physical examinations	153
Schick tests given	1,243
Toxin-antitoxin administrations	201
Toxoids at Child Health Conferences	123
Toxoids at units and day nurseries	203
Toxoids at parochial schools	428
Vaccinations	156
Vaccination certificates	31
Day nursery visits	20
Parochial school visits	47
Conferences	24

Report of Child Health Conferences, February, 1930.

Station.	Number of Babies.	Number of Preschool (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	179	3	182	24	1	25	4	46
31 Lincoln street, Brighton	72	7	79	9	2	11	4	20
Charlestown Municipal Building	275	24	299	30	5	35	8	35
Codman Square Library	346	69	415	56	2	58	8	52
Columbia Road Municipal Building	255	10	265	34	1	35	8	33
1 Arcadia street, Dorchester	275	60	335	22	5	27	8	42
East Boston Health Unit	268	30	298	52	5	57	8	37
Hyde Park Municipal Building	149	16	165	17	—	17	8	21
Curtis Hall, Jamaica Plain	206	18	224	37	2	39	4	56
41 North Margin street	176	55	231	32	1	33	8	29
Roslindale Municipal Building	164	24	188	16	1	17	4	47
Children's Hospital	106	7	113	9	2	11	4	28
1049 Columbus avenue	270	8	278	47	2	49	8	35
Roxbury Health Unit	417	45	462	77	12	89	12	39
133 Dorchester street, South Boston	264	45	309	51	10	61	8	39
122 Tyler street	81	21	102	9	4	13	4	25
Shawmut Avenue Municipal Building	105	18	123	13	2	15	4	31
57 East Concord street	182	5	187	38	—	38	4	47
17 Blossom street	207	20	227	26	1	27	8	29
Totals	3,997	485	4,482	599	58	657	124	32

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, FEBRUARY, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	2	1	1	4	3
31 Lincoln street, Brighton	—	1	1	2	—
Charlestown Municipal Building	—	—	—	—	10
Codman Square Library	37	47	42	126	7
Columbia Road Municipal Building	4	10	2	16	7
1 Arcadia street, Dorchester	14	14	12	40	12
East Boston Health Unit	—	—	—	—	5
Hyde Park Municipal Building	4	—	—	4	2
Curtis Hall, Jamaica Plain	2	6	6	14	3
41 North Margin street	—	—	—	—	10
Roslindale Municipal Building	5	1	1	7	7
Children's Hospital	4	6	3	13	2
1049 Columbus avenue	15	3	1	19	24
Roxbury Health Unit	14	9	14	37	10
133 Dorchester street, South Boston	—	—	—	—	2
122 Tyler street	3	5	4	12	4
Shawmut Avenue Municipal Building	3	3	5	11	9
57 East Concord street	3	1	2	6	8
17 Blossom street	—	—	—	—	—
Totals	110	107	94	311	125

DENTAL ACTIVITIES AT HEALTH UNITS, FEBRUARY, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
Number of cases seen	87 1	745	654	697	885	802	781	5,435
Number of treatments:								
By dentists	815	1,475	785	1,115	1,083	1,104	838	7,215
By hygienists	218	97	141	72	175	61	148	912

Referred by public schools; parochial schools; roofs; T. B. contacts; day nurseries.

CO-OPERATIVE HEALTH UNIT REPORT, FEBRUARY, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
BOSTON DISPENSARY:								
Calls by district physician	37	.....	72	58	.....	.....	45	212
BOSTON LYING-IN HOSPITAL:								
Number of clinics	3	4	4	4	4	4	.....	23
Attendance	28	78	60	69	28	14	.....	277
New cases	6	22	10	12	11	3	.....	64
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,704	2,520	1,714	2,070	2,536	313	1,390	12,247
Cases referred	197	63	63	.....	45	210	98	676
Diseases reported	72	.....	2	12	2	.....	4	92
Number of mothers' club meetings,	4	4	4	4	4	3	4	27
Attendance	54	63	59	83	58	39	52	408
FAMILY WELFARE SOCIETY:								
Number of staff meetings	5	4	.....	3	4	.....	.....	16
Attendance	75	37	.....	25	57	.....	.....	194
CHILDREN'S HOSPITAL:								
Number of infantile clinics	3	4	.....	3	3	3	.....	16
Attendance	26	21	.....	37	18	40	.....	142
New cases	.....	.....	.....	.....	2	.....	.....	2
STATE DEPARTMENT OF MENTAL HYGIENE:								
Number of habit clinics	.....	.....	.....	.....	.....	.....	3	3
Attendance	.....	.....	.....	.....	.....	.....	38	38
MEDICAL ASSOCIATION:								
Meetings	.....	1	.....	.....	.....	.....	.....	1
Attendance	.....	13	.....	.....	.....	.....	.....	13
RED CROSS:								
Number of home nursing classes	.....	.....	.....	3	.....	.....	4	7
Attendance	.....	.....	.....	68	.....	.....	26	94
BOY SCOUTS MEETINGS	.....	2	.....	.....	.....	.....	.....	2
Attendance	.....	60	.....	.....	.....	.....	.....	60
JEWISH CHARITIES:								
Meetings	.....	1	.....	.....	.....	.....	.....	1
Attendance	.....	7	.....	.....	.....	.....	.....	7
HEALTH DEPARTMENT:								
Refraction Service:								
Number of refractions	.....	.....	76	.....	.....	.....	.....	76
Number of diagnosis	.....	.....	92	.....	.....	.....	.....	92
New glasses recorded	.....	.....	25	.....	.....	.....	.....	25
New cases	.....	.....	26	.....	.....	.....	.....	26
Nose and Throat Service:								
Clinics	.....	.....	.....	.....	.....	.....	1	1
Attendance	.....	.....	.....	.....	.....	.....	64	64
Operations recorded	.....	.....	.....	.....	.....	.....	31	31
Mothers' club meetings by Health Department dietitians:								
Number of meetings	1	.....	1	1	.....	1	.....	4
Attendance	17	.....	19	16	.....	14	.....	66

NURSING SERVICE.

REPORT FOR FEBRUARY, 1930.

HOMES VISITED			14,889
CHILD HYGIENE:			
Visits to new cases		1,110	
Visits to old cases		8,069	
			9,179
Included are:			
Wrong addresses	75		
Not seen *	624		
Absent visits	699		
COMMUNICABLE DISEASES:			
Visits to new cases		1,527	
Visits to old cases		2,650	
			4,177
Included are:			
Wrong addresses	59		
Not seen *	117		
Absent visits	176		
Ophthalmia visits	90		
	266		
TUBERCULOSIS:			
Visits to new cases		186	
Visits to old cases		4,011	
			4,197
Included are:			
Wrong addresses	23		
Not seen *	337		
Absent visits	360		
Positive case visits	1,863		
Contact case visits	1,508		
Suspect case visits	466		
	4,197		
MISCELLANEOUS VISITS:			
Infant death investigations		63	
Maternal death investigations		10	
Patients accompanied to hospital		16	
Visits to day nurseries		60	
Visits to parochial schools		408	
			557
Total number of visits			18,110

	Hrs.	Min
Hours in station by nurses	3,142	45
Hours at baby and preschool conferences	1,684	30
Hours at tuberculosis clinics	738	35
Total number of hours	5,565	50

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

VITAL STATISTICS, FEBRUARY, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING FEBRUARY, 1930, WITH COMPARATIVE FIGURES FOR FEBRUARY, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	966	1,214	—248	14.29	18.09	—3.80
Nonresidents deducted	778	989	—211	11.51	14.73	—3.22
By Age:						
Under one year	115	129	—14	1.70	1.92	—.22
One year to four years, inclusive	39	61	—22	.58	.91	—.33
Sixty years and over	425	548	—123	6.29	8.16	—1.87
Infant and Maternal Mortality:						
a. Total registered live births	1,054	1,079	—25	15.59	16.08	—.49
b. Registered stillbirths	28	24	+4	.41	.36	+.05
Stillbirths per 1,000 live births and stillbirths	—	—	—	25.88	21.76	+4.12
c. Deaths of mothers from causes incident to childbirth	17	14	+3	.25	.21	+.04
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	15.71	12.70	+3.01
d. Deaths in first year per 1,000 live births	—	—	—	109.10	119.55	—10.45

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	28	39	—11	41.4	58.1	—16.7
Homicides	—	1	—1	—	1.5	—1.5
Suicides	9	5	+4	13.3	7.4	+5.9
Automobile accidents* (death in Boston)	8	5	+3	11.8	7.4	+4.4
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	8	14	—6	11.8	20.8	—9.0
Broncho-pneumonia	88	154	—66	130.2	229.4	—99.2
Cancer	107	110	—3	158.3	163.9	—5.6
Cirrhosis of the liver	5	8	—3	7.4	11.9	—4.5
Diabetes mellitus	10	18	—8	14.8	26.8	—12.0
Diarrhea and enteritis (under two years)	4	9	—5	5.9	13.5	—7.6
Degenerative Diseases, So Called:						
Arteriosclerosis	35	33	+2	51.8	49.2	+2.6
Cerebral hemorrhage	41	56	—15	60.6	83.4	—22.8
Heart disease	195	228	—33	288.5	339.7	—51.2
Nephritis, chronic	69	75	—6	102.1	111.7	—9.6

* Automobile accidents included in accident total.
Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, FEBRUARY, 1930.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis.....Cases..	—	—	—	—	—	—
Deaths.	—	—	—	—	—	—
Cerebrospinal meningitis.....Cases..	6	3	+3	8.9	4.5	+4.4
Deaths.	3	3	—	4.4	4.5	—.01
Diphtheria.....Cases..	96	92	+4	142.0	137.1	+4.9
Deaths.	6	6	—	8.9	8.9	—
Influenza.....Cases..	7	252	—245	10.3	375.5	—365.2
Deaths.	—	20	—20	—	29.8	—29.8
Measles.....Cases..	415	73	+342	613.9	108.8	+505.1
Deaths.	—	1	—1	—	1.5	—1.5
Pneumonia (lobar).....Cases..	209	724	—515	309.2	1,078.7	—769.5
Deaths.	70	105	—35	103.5	156.4	—52.9
Scarlet fever.....Cases..	342	303	+39	505.9	451.4	+54.5
Deaths.	4	6	—2	5.9	8.9	—3.0
Tuberculosis (pulmonary).....Cases..	143	115	+28	211.5	171.3	+40.2
Deaths.	48	52	—4	71.0	77.5	—6.5
Tuberculosis (other forms).....Cases..	24	21	+3	35.5	31.3	+4.2
Deaths.	6	7	—1	8.9	10.4	—1.5
Typhoid fever.....Cases..	1	2	—1	1.5	3.0	—1.5
Deaths.	—	—	—	—	—	—
Whooping cough.....Cases..	241	93	+148	356.5	138.6	+217.9
Deaths.	1	4	—3	1.5	5.9	—4.4

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

Rec'd MAY 1 1930 B. P. L.

VOL. 19. BOSTON, APRIL, 1930. NO. 4

THE PREVENTION OF "LOCK JAW."

One of the most important modern contributions to preventive medicine is the production of antitoxin which is capable of preventing the development of tetanus (lock jaw) from wounds which have been infected with the tetanus bacillus. The tetanus bacillus is not primarily a parasitic bacillus like the diphtheria or typhoid fever bacillus, for example. The tetanus bacillus is one of many kinds of different bacteria which are natural inhabitants of the soil. It grows more abundantly in some regions than in others. Stable manure is favorable to its growth. It belongs to the class of bacteria known as anaërobic bacteria, in other words, it will not grow where it is exposed to the air. If it be accidentally introduced into a wound from which air is excluded either by reason of the character of the wound itself or because the air is shut out by dressings and if certain other favorable conditions are present, the tetanus bacilli will grow and multiply in the wound and in doing so will produce poison or toxin which being absorbed produces the characteristic symptoms of the disease. The poison hits the nervous system.

The wounds which are favorable to the development of tetanus are those in which the flesh has been mangled and shut out from contact with air or circulating blood either on account of the character of the wound or because the bacilli have been carried into a deep wound in a part of the body where the blood supply is naturally poor. For these reasons, blank cartridge wounds of the palm of the hand and deep punctures of the foot by dirty nails are especially dangerous. Undoubtedly, the development of tetanus from the introduction of the tetanus bacilli in a wound is exceptional. Usually, exposure to the air or a free blood supply to the wound prevents the growth of the bacilli. Tetanus is an accompaniment of a dirty, unhealthy-looking wound.

As with the diphtheria antitoxin, the horse has been utilized to give us a tetanus antitoxin. It is produced in virtually the same way. The horse is stimulated by repeated small non-fatal doses of the tetanus toxin produced by laboratory cultures, to develop in the horse's blood an antidote to the poison or toxin of tetanus. No way has yet been found to get the pure antitoxin out of the serum of the horse's blood. The serum is subjected to a process which serves to remove therefrom certain elements, but what then remains and which includes the tetanus antitoxin is injected into a person to produce the protective effect of the antitoxin.

Tetanus antitoxin, therefore, like the diphtheria antitoxin, has the unpleasant possibilities which may result from the injection of horse serum into a human being. In a small percentage of adults some swelling about the joints and "hives" or an urticarial eruption will follow in about a week, or perhaps after two or three weeks there may be a general eruption which itches, with or without a fever. If a person has already been given some horse serum product and has happened to become sensitized to horse serum, a dose of horse serum will produce at once alarming and possibly dangerous symptoms.

It is well that these possibilities be understood, but it is more important to realize that they do not justify taking any chances with a wound of a character favorable to the growth of tetanus bacilli and possibly containing such organisms. The practical value of tetanus antitoxin was amply demonstrated in the World War. Comparatively simple precautions can always be taken to prevent any serious consequences from the administration of horse serum. The really important matters are to see that the dosage of tetanus antitoxin is adequate and to remember that its protective value is transient. These conditions are so forcibly brought out by

an article entitled, "The Prophylaxis of Tetanus," appearing in the New York City "Department of Health Bulletin" of November 23, 1929, that it is reproduced below.

From January 1, 1928, to date (October 8, 1929), forty-two fatal cases of tetanus in the City of New York were reported to the Department of Health. In ten of these the disease developed despite the administration of a prophylactic dose of tetanus antitoxin shortly after the injury. Following is a summary of the pertinent data on these ten cases:

Patient.	Age Years.	Nature of Injury.	Date of Injury.	Prophylactic Dose of Antitoxin.	Onset.
E. F.....	16	Toy pistol wound.....	July 4, 1928.	July 4, 1,500 units.	July 11
F. N.....	15	Toy pistol wound.....	July 4, 1928.	July 4, 1,500 "	July 12
A. A.....	14	Toy pistol wound.....	July 1, 1928.	July 3, 1,500 "	July 14
C. S.....	13	Wound of ankle while diving off pier.....	Sept. 23, 1928.	Sept. 24, 1,500 "	Oct. 2
R. K.....	10	Compound fracture due to fall in yard.....	Nov. 21, 1928.	Nov. 21, 1 500 "	Dec. 11
P. C.....	40	Lacerated wound of foot due to stepping on nail.....	June 13, 1929.	June 13, 1,500 "	June 25
C. R.....	11	Blank cartride wound.....	July 4, 1929.	July 4, 1,500 "	July 14
L. G.....	17	Blank cartridge wound.....	July 4, 1929.	July 4, 1,500 "	July 19
T. O'B..	7	Blank cartridge wound.....	Aug. 21, 1929.	Aug. 21, 1,500 "	Sept. 8
L. B.....	12	Fractured skull, lacerations of face, automobile accident.....	Sept. 2, 1929.	Sept. 2, 1,500 "	Oct. 1

While the great majority of fatal cases of tetanus (32 out of 42) received no prophylactic dose of tetanus antitoxin, this analysis indicates that a single dose of 1,500 units is not always large enough to provide the safety which such prophylactic injections should give. It must, of course, be borne in mind that, as in the case of all *passive* immunization, the protection afforded by prophylactic injections of antitoxin lasts only for seven to twenty-one days, for the antitoxin is rapidly eliminated by the body. For this reason it is not fair to expect complete protection if the source of the tetanus poison is not removed from the body. This was clearly proven in the late war. In all cases, therefore, physicians should make certain that all accidental wounds are thoroughly cleaned out, if necessary, by enlarging the wound for this purpose and getting at all deep pockets in which infected material may have been carried.

. . . . . .

The cases cited indicate the advisability of employing larger prophylactic doses of tetanus antitoxin in cases of blank cartridge wounds and compound fractures.

THE COMMUNITY HEALTH ASSOCIATION OF BOSTON.

The annual report of the association for 1929 shows that its income was $364,683, and expenditures $367,018. The operations for year, therefore, resulted in a deficit of $2,335.

Its force of 150 nurses made 337,536 visits to 41,156 patients, 3,774 of whom were receiving attention at the beginning of the year. From the report it would appear that in 261,535 visits nursing care was given and that in the remainder the service rendered was of an educational character.

Approximately 57 per cent of the expenditures during the year were met from money received on behalf of persons who received attention, 30 per cent from donations and only about 12 per cent from endowments.

The president of the association is Mr. Malcolm Donald, 1 Federal street; the treasurer, Mr. Richard C. Paine, 100 Milk street, and the general director, Miss Florence M. Patterson. The Central Office of the association is No. 502 Park Square Building.

WHAT PEOPLE EXPECT.

No matter what the individual's attitude toward cleanliness may be, the social and economic groups, in this country at least, are cleanliness-conscious. In the presence of other human beings, how many of us can feel comfortable in a spotted dress or soiled collar? What hostess can expect her guests to enjoy the most delicious meal served on a dirty plate or a soiled table cloth? What applicant for a so-called "white collar job" can hope for success if his appearance is untidy? What surgeon can expect patients if his finger nails are habitually dirty?

It is possible that cleanliness may not be an index of ability. We may be charming in spite of the spotted dress or the soiled collar. The hostess at the head of her soiled table-cloth may be a brilliant conversationalist. The untidy applicant for a job may have brains in her tousled head and nimbleness in her grimy fingers. The point is that the group has definitely become suspicious of unclean persons and unclean surroundings.

Charm and ability, hand in hand with uncleanliness, are possible — yes! But is that alliance probable? The chances are against it. As a group we have learned by experience that the qualities that lead to success are near relations of cleanliness.

— J. Mace Andress, Ph.D., in "Hygeia."

HEALTH AND MENTAL HABITS.

That mental and emotional habits have both a direct and indirect bearing upon the health and well-being of the individual is a matter which is being much stressed in the medical literature of the day.

. . . . . .

Often things that are done are said to be the result of what one has inherited from one's parents and other immediate ancestors, when as a matter of fact they are due to habits which have been formed in early childhood and which have become so much a part of the individual that it seems as if they had been inherited. It is much easier to form good habits early than to try to break bad habits later on.

Good Habits, How to Acquire Them.— What are some of the good mental habits which should be encouraged within ourselves? The majority of persons have been taught the importance of good physical health habits such as cleanliness, care of the teeth, and the like. It is just as necessary to form good mental habits which will be a great help to the individual in regulating his behavior, aiding his thinking, and establishing the way he feels about himself and other persons, and about life in general. Such good mental habits will be of great value to every one in getting along successfully and happily with himself and with other people.

Get into the habit of letting your good nature be with you most of the time. Try to be cheerful as much of the time as you can; it is good for you and helps to make friends. Don't get the habit of constantly and needlessly finding fault and of being cross and mean. You cannot make friends or be happy that way. Develop the habit of friendliness, of being generous, of being broad-minded and of overlooking things you do not like in other persons. Do not make a habit of merely criticizing. Learn to cooperate with others without being jealous, be willing to share with others, to respect the rights of others. Protect and do not take advantage of those who are younger and weaker or more helpless or less powerful than you are; be merciful to the sick and the poor. Do not harbor grudges. Cultivate habits of thoughtfulness, helpfulness, fair play and honesty.

Remember that our thinking powers, our ability to concentrate and pay attention must be trained and as a result become stronger and stronger. To avoid becoming selfish, "Do a good turn each day." Although you should consult others and try to get as much information and as good advice as you can before making decisions and moves of importance to you and those about you, do not depend on others too much, but do your best to develop initiative, self-

confidence and independence. Think for yourself, but do not be stubborn without reason. The great things of the world have been done by those who had vision and faith, who had confidence, who had courage and self-assertion and who were willing to persist in work and to make the necessary sacrifices in order to achieve their legitimate ambitions.

Be a Good Loser.— Do not, in the face of difficulties, resort to quarrelsomeness, displays of temper, timidity, or unnecessary fear and panic. When things don't go your way, you do not help things by crying or by worrying or by getting frightened and panicky. Try to meet conditions or persons that you don't like with calmness and poise. Be a good sport, play the game squarely and carry on.

. . . . . .

How to Break Bad Habits.— How can one break a bad habit and substitute a good one? William James, the great psychologist, laid down the following three principles: (1) Work up a strong initiative, which means make a good start at something which has a strong appeal to other habits and wishes. (2) Get as much practice as possible, which means to act in the new direction at every opportunity so that you will be sure to get plenty of repetition. Repetition, repetition and again repetition is necessary for the formation of habits. (3) Prevent exceptions. In other words, allow no exceptions to the new rules of right thinking, feeling or acting that you have mapped out for yourself.

Break one habit, rather than several habits, at a time. This gives you more opportunity to concentrate. It is important to avoid persons or things that may remind you of and drag you back into your bad habits. For this reason, keep away from companions, neighborhoods or conditions that are connected with your bad habits, no matter what they are, and acquire new companions, new places to visit, and new interests.

Your habits are the building stones of your character and reputation. Your success in life depends on having a good character and reputation. Cultivate, then, only habits that will insure success.—*Excerpts from Chicago Health, March 30, 1930.*

2,300 TONS OF POLLUTION AFLOAT IN MANHATTAN ATMOSPHERE.

The urgency of the widespread agitation for abatement of the smoke and dirt nuisance in the average urban community has just been strikingly emphasized by an investigation made for the Smoke Nuisance Abatement Committee of New York. It was found that approximately 2,300 tons of foreign matter float in the Manhattan

atmosphere, and that it is composed largely of unconsumed carbon, ash and bacteria and organic matter.

The investigation was made by Professor H. H. Sheldon, head of the Physics Department, with the cooperation of physicists of the Carrier Engineering Corporation, and their method of procedure was a unique departure from the previous methods employed, which seldom brought satisfactory results. Previously, the usual practice in such tests was to take samples of air at isolated places by means of vacuum bottles. Professor Sheldon used the dust and dirt captured by the air-conditioning systems in Broadway motion picture theaters.

These systems, in addition to performing the usual ventilating function of drawing in and circulating air, wash and humidify — or dehumidify — it. In this process, which is accomplished with water sprays, 96 per cent of the dust, dirt and foreign particles in the atmosphere is precipitated and caught on the floors on the spray tanks.

By determining the number of cubic feet of air — 341,000,000 — passing through the tanks of one of the theaters and getting the number of cubic feet — $11\frac{1}{4}$ — of dust and dirt caught, it was possible to estimate that, for the city's entire atmosphere of one trillion cubic feet there were 35,160 cubic feet of foreign particles. The one trillion cubic feet of atmosphere is an estimate made by the Brooklyn Polytechnic Institute based on the area of Manhattan and the air for 200 feet above the pavements.

Professor Sheldon analyzed the dirt samples and found that 65 per cent of these particles was unconsumed carbon — coal, gasolene and motor oil — 15 per cent stone dust and mineral matter, including ashes, and 20 per cent germs, septic and organic matter. The unconsumed fuel alone would have been sufficient to run all of New York's electric light and power plants for six hours out of the twenty-four. The germs and bacteria proved on analysis to range from streptococci and diplococci to spirochaetae.

A similar test made with dust and dirt accumulated by the air-conditioning installation in the House of Representatives wing of the Capitol indicated that the atmosphere of Washington, which is reputed to be an exceptionally clean city, contains a total of about 90 tons of foreign matter.

SCHUYLER PATTERSON, from "American City," August, 1929.

TRUTH ALWAYS CLEAR.

"Truth is always very clear when seen with a clear eye. The fact that any theory cannot be enunciated and only succeeds in befogging the mind is a patent proof that it is not really truth."

THE VIRUS OF PSITTACOSIS.

Sufficient evidence has accumulated to indicate that the virus concerned with the recent outbreak of psittacosis is ultramicroscopic. Hegler reports investigations of a number of cases in Germany some of which were fatal. These did not reveal the infective agent either in the patients or in the parrots from which the disease was contracted. An investigation of several fatal cases in England by Bedson, Western and Simpson likewise failed to reveal either the bacillus of psittacosis or typhoid or paratyphoid bacilli. Hegler believes that the causative agent is a filtrable virus that may produce a mixed infection with such organisms as pneumococci and streptococci. Investigations of cases of psittacosis in New York present additional evidence that the virus is filtrable. Krumwiede and others in the Municipal Health Department Laboratories examined a sick parrot found in a home in which there were two human cases of psittacosis. The bacillus of psittacosis was not found in this bird. Material from this parrot, however, when inoculated into another parrot produced the same disease. This virus could be passed through a Berkefeld filter and still remain capable of producing the disease in other parrots. The New York investigators were able to pass the virus through three series of parrots. When material from human cases was inoculated into healthy parrots, it produced the same clinical picture that was present in the parrots that had been inoculated with material from the first parrot. When this human material was filtered through a Berkefeld filter, the filtrate produced sickness and death on injection into parrots. Mice were susceptible to the same virus. Mice inoculated with material from the first sick parrot died. The virus was submitted to several passages through mice and then used again to infect a healthy parrot. When this parrot died, material from it was able again to kill mice. In none of these cases was the bacillus of psittacosis found. Thus, from three countries in which bacteriologic studies have recently been made there is evidence that the infective agent is a filtrable virus.— "Journal," American Medical Association, March 29, 1930.

DANGER OF EATING UNCOOKED PORK.

Pork is very likely to contain small uncysted worms known as "trichinæ." These worms are too small to be seen without a microscope. When pork containing these small worms is eaten the worms become fully developed in the persons' intestines and lay hundreds of eggs which hatch out into a new crop of small worms and these worms bore their way through the person's intestines out

into the person's muscles. Whether the person will die or not will depend on how strong he is and how many little worms he ate with the pork.

It is so easy to overlook these little worms or trichinæ in pork, even when an attempt is made to examine pork with a microscope in a regular laboratory, that the United States Bureau of Animal Industry issues the following warning:

"No method of inspection has yet been devised by which the presence or absence of trichinæ in pork can be determined with certainty, and the Government meat inspection does not include inspection for this parasite. All persons are accordingly warned not to eat pork or sausage containing pork, until after it has been properly cooked."

No pork can be regarded as properly cooked until every part of the pork including the very center of a piece of pork has been held at a temperature of not less than 140 degrees for some time. It must be cooked clear through and if it is to be roasted or boiled, it must be roasted or boiled over a hot fire for hours until the very center of the pork has turned white and dry just like the outside. Even when exposed to a hot fire, pork should be cooked not less than a half hour for every pound in the piece of pork and proportionately longer in large or thick pieces of pork. A six-pound piece of pork should be kept in a hot overn or in actively boiling water not less than four hours.

COMPENSATION FOR DEATH RESULTING FROM INFECTION FOLLOWING VACCINATION.

Under date of March 6, the Michigan Supreme Court rendered an opinion in the case of Delia Neudeck *v.* Ford Motor Company, which had been submitted to it on the following statement as to facts:

The husband of the claimant was employed by the company in July, 1928, and immediately upon being employed he was ordered by the officials of the company to be vaccinated and thereupon was vaccinated by a doctor employed by the company; as an effect of said vaccination the employee incurred a streptococcus posioning, the focus of the infection being the vaccinated arm and as a consequence the employee died of a streptococcus poison in September, 1928. It was also agreed to, apparently as a material fact under Michigan laws, that the claimant was totally dependent upon the deceased.

The Court found that under the Workingmen's Compensation Act of Michigan, the infection constituted an accident occurring in the course of employment, and that the claimant was accordingly entitled to compensation.

From the citations in the opinion it would appear that all decisions which had any bearing upon the opinion in this case were decisions of Michigan courts. An important distinction was made between this case and that of Krout *v.* J. L. Hudson Company (200 Mich. 287) in which death was likewise due to infection following vaccination. In the Krout case the claimant was found not be entitled to compensation for the following reason:

In this case the vaccination was done by a public agency, the employee being vaccinated by a physician employed by the Board of Health, independently of the employer and the employment. In the Neudeck case the vaccination was performed by the employer's physician; was suffered by the employee under direct order of the employer; neither the employee nor the employer was under the compulsion of the public authorities, but the employer was acting in a merely discretionary compliance with a request of the public authorities that new employees be vaccinated. The vaccination therefore "occurred in the course and out of the employment."

The attitude of the Court with respect to the relation of the vaccination to the infection appears from the following:

The vaccination wound was not an accident, because it was not "an unforeseen event." But vaccination is usually harmless, and infection, therefore, is an accident. No one could testify that he saw a germ enter the wound. The most that could be done would be to tell the condition which would render infection probable or possible. There was no testimony to indicate how or when the infection did or could have occurred, or its cause. The only cause, time and place indicated in the record are found in the concession in the statement of facts — that the infection was an effect of the vaccination. This concession ties the accident of infection to the act of vaccination as occurring in the course of the employment.

It is to be observed that had this case occurred in Massachusetts, the Court would have had to take into consideration the bearing of a special statutory provision regarding the vaccination of employees. Section 182 of chapter 111 of the General Laws requires any incorporated manufacturing company to cause "all inmates" to be vaccinated at the company's expense if the Board of Health decides that such procedure is necessary for the public safety.

PAYING FOR PROSPERITY.

Many authorities have cited the fact that the death rate of our people past middle age has been increasing in recent years. In a word, that while the average span of life has been lengthened, this

was due wholly to the wonderful reduction in infant mortality. Offsetting this has been the increasing mortality of the adults.

But now comes the statement by Dr. E. L. Fish of the Life Extension Institute, that this increasing mortality after middle age is peculiar to the United States. In other countries, he declares, the death rate among adults is falling, and that the actual span of life in these countries is really being lengthened.

What the cause is of the breakdown here he is not sure, but suggests that it is due to the stupendous industrial expansion and development. At any rate, he is certain that the breakdown starts earlier here; in fact, at thirty-seven years of age.

It seems that this suggestion is logical. America is not the only great industrial nation. England has been industrialized for nearly a century. But while no statistics are available, it is generally conceded that Americans work harder than other peoples. Not merely as mechanics or laborers, but the owners and executives in business work at a higher speed and under greater pressure than in other countries.

The price we pay for our prosperity is then, apparently, a shorter life.—*Boston Post.*

LAW ON BIRTH REPORTING.

Chapter 46, General Laws, section 3: Every physician, or medical officer registered under section 9 of chapter 112, shall keep a record of the birth of every child in cases of which he was in charge, showing date and place of birth, the name, if any, of the child, its sex, color, the name, age, birthplace, occupation and residence (including the street number, if any, and the ward number, if in a city) of each parent, the maiden name of the mother and the name of the physician or officer, if any, personally attending the birth. If the child is illegitimate, the name of and other facts relating to the father shall not be set forth except upon written request of both the father and the mother. Said physician or officer shall, within fifteen days after such birth, mail or deliver to the clerk or registrar of the town where such birth occurred, a report stating the facts herein above required to be shown on said record and also the said written request, if any; provided that if said report is not made within forty-eight hours after such birth, said physician or officer shall, within forty-eight hours, mail or deliver to said clerk or registrar a notice stating the date and place of birth, the street number, if any, the ward number, if in a city, and the family name, upon presentation to him of a certificate of the town clerk stating that any such birth has been duly reported, the town treasurer shall pay to such physician or officer a fee of 25 cents for each birth so reported.

OUR PROSPECT OF OLD AGE.

There has been some confusion in the past in the use of the expression "span of life." It is not always clearly understood that there can be marked improvement in the expectation of life or the mean length of life, in spite of the fact that the span of life has, so far as we know, changed little or not at all.

SUMMARY OF WORK, MARCH, 1930.

ADMINISTRATION DIVISION.

Legal notices	216	Personnel:	
Settlements:		Provisional appointment	1
Total cases	150	Permanent appointments	2
Notices	120	Temporary appointments	2
Bills	30	Temporary appointments, terminated	2
Forcible removal	1	Transfers	2
Hearing, cemetery	1	Orders issued	3

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	1,227	Day nursery	1
Denatured alcohol	2	Manure	1
Hen licenses approved	364	Garbage transportation	6
Lying-In Hospitals approved	2	Dumps approved	5
Manicure-massages granted	54	Milk	97
Ice cream dealers	28	Pedlers	96
Grease	28	Stable rights revoked	1

MEDICAL DIVISION.

Reported cases	3,131	Visits:	
Nonresidents	92	By V. D. investigator	313
Deaths investigated	48	By medical inspectors to cases of communicable disease	610

BACTERIOLOGICAL LABORATORY DIVISION.

Diphtheria	790
Tuberculosis	448
Typhoid	27
Gonorrhea	1,042
Gonorrheal ophthalmia	82
Syphilis	1,067
Other examinations *	254
Bacteriological examinations of milk	796
Bacteriological examinations of ice cream	4
Dark field	4
Genito urinary T. B.	18
Malaria	2
Swimming pools examined	64
Water samples examined	4

* Urine for eberthella typhi, 5; fæces for eberthella typhi, 5; urines for analyses, 228; smears for meningococci, 5; smears for Vincent's angina, 1; fæces for parasites, 1; steak for decomposition, 1; corned beef for paratyphoids, 1; blood culture for organisms, 1; water for B. Coli, 6.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during March, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.66	3.70	7,000
Antetomasso, Peter	12.78	3.78	25,000
Bancroft, Hugh *	14.01	4.60	10,000
Brandley, T. J., & P. J.	12.46	3.70	1,000
Buxton, William E.	14.26	4.90	9,000
Casey, James D.	12.74	4.00	11,000
Cashin, J. F., & Co.	12.55	3.88	22,000
Chapin, George L.	12.82	3.98	1,200
Clark, Levi	12.13	3.67	51,000
Corkery, John J.	12.55	3.87	10,000
Cosgrove, Martin S.	12.56	3.76	19,000
Daley, John	12.41	3.78	2,300
Dean, Louis W.	13.47	4.35	9,000
Deerfoot Farms Company	12.87	4.02	12,000
Denehy, Timothy	12.87	3.95	13,000
Driscoll, William B., Company	12.70	3.78	12,000
Edgerly, Frank C.	12.53	4.98	7,000
Elm Spring Farm Company	12.23	3.61	19,000
Ferguson, Malcolm D.	12.65	3.70	12,000
Garfield, Mason	15.27	5.75	10,000
Garvin, Charles	12.79	4.30	7,000
Giroux, J. E., & H. J.	12.59	3.81	13,000
Griffin, Joseph L.	12.72	3.82	12,000

* Milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Gushee, Chester W.	12.74	3.86	20,000
Hampden Creamery Company	12.81	3.67	25,000
Herlihy Brothers, Inc.	12.58	3.74	14,000
Hickey, J. B.	12.46	3.90	22,000
Holden, John E.	12.61	3.88	8,000
Hood, H. P., & Sons, Inc.	12.41	3.80	12,000
Hutchinson, F. T.	13.00	4.40	15,000
Jones, William T., Company	12.79	4.05	11,000
Kendall Brothers	12.56	3.75	8,000
Kingston Brothers	12.56	3.70	13,000
Knapp, George J.	12.71	3.81	22,000
Lang Brothers	12.43	3.65	11,000
Larsson, Charles	12.98	4.25	35,000
Lyndonville Creamery Association	12.85	3.93	16,000
Lyons, William A.	12.88	4.00	14,000
Manning, Harriet	12.38	3.73	12,000
McAdams, J. F., & Brothers., Inc	12.80	3.92	10,000
McKernan, John	12.77	3.75	27,000
Munchback, Albert W.	12.35	3.75	25,000
New England Creamery Products Company *	12.65	3.96	25,000
Robinson, A. J.	13.10	4.10	9,000
Schuster, Adam	12.14	3.55	15,000
Seven Oaks Dairy Company	12.83	4.03	15,000
Shick, Jacob	12.54	3.73	19,000
Somerset Farms Creamery Company	12.90	4.10	7,000
Sterling Farms Milk Company	12.53	3.84	9,000
Stone, H. L.	12.60	3.90	11,000
Stuart, W. E., Company	12.64	3.94	8,000
Turner Centre System	12.46	3.82	11,000
United Farmers' Co-operative Creamery Association, Inc.,	12.68	3.99	11,000
Walker-Gordon Laboratory Company* †	12.58	4.00	None.
Weiler, E., & Sons	12.69	3.75	11,000
Westwood Farms Milk Company	12.63	3.86	10,000
White Brothers	12.68	3.94	13,000
Whiting Milk Companies	12.34	3.74	12,000
Whittemore, W. D.	12.79	3.85	6,000
Williams, Edward C.	12.65	4.15	15,000
Wiswall, Granville A.	12.58	3.90	4,000
Woodland, Charles L.	12.36	3.75	19,000

* Milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc....	12.38	3.87	17,000
M. Brown & Sons.....	Whiting Milk Companies...	12.38	3.78	15,000
The Cloverdale Company.....	White Brothers & Hood, H. P., & Sons, Inc.	12.66	3.97	33,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.47	3.83	22,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Company.	12.99	4.07	13,000
Morgan Brothers Company *...	New England Creamery Products Company.	12.72	4.07	26,000
M. Winer Company.....	M. Winer Company.....	12.92	4.17	16,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachussetts law requires not less than 4 per cent milk fat, production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.62	4.60	10,000
Cosgrove, Martin S.....	13.69	4.62	20,000
Dean, Louis W.*.....	13.42	4.30	9,000
Elm Spring Farm Company.....	12.84	4.06	12,000
Griffin, Joseph L.....	13.43	4.38	11,000
Herlihy Brothers, Inc.....	12.55	4.22	9,000
Hood, H. P., & Sons, Inc.....	12.60	5.15	4,300
Jones, William T., Company.....	13.18	4.38	8,000
Lyndonville Creamery Association.....	13.72	4.55	2,500
McAdams, J. F., & Brothers, Inc.....	12.90	4.38	8,000
Robinson, A. J.....	13.67	4.50	8,000
Seven Oaks Dairy Company.....	13.11	4.17	17,000
Sterling Farms Milk Company.....	12.84	4.11	5,000
Turner Centre System.....	13.34	4.49	10,000
Weiler, E., & Sons.....	13.02	4.16	10,000
White Brothers.....	12.90	4.40	9,000
Whiting Milk Companies.....	12.60	4.05	13,000
Woodland, Charles L.*.....	13.56	4.70	4,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content no more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
Cedar Hill Farm, Inc.	Own	13.39	4.50	2,800
Hood, H. P., & Sons, Inc.*	Own	13.40	4.50	3,200
New England Creamery Products Company.	Bellows Stock Farm	12.02	3.60	6,500
Turner Centre System	Alta Crest	12.88	4.00	800
Walker-Gordon Laboratory Company.*	Own	12.85	4.23	2,800
Whiting Milk Companies	Hampshire Hills	13.08	4.15	2,300

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
Cedar Hill Farm, Inc.	Own	12.52	3.85	150
Hood, H. P., & Sons, Inc.*	Own	13.13	4.25	None.

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	409
Milk from stores	935
Vinegar	67
Ice cream	1
Drugs	9
Water	1
Evaporated milk	2
Sausage	1
Canned goods	1
Fish	5
Brine	3
Ginger extract	3
Corned beef	1
Lactic acid	1
Miscellaneous	5
Samples referred to Bacteriological Laboratory for examination:	
Milk	796
Ice cream	4
Court cases	16
Fines	$175

DAIRY DIVISION.

Total services	2,294	Total cattle inspected	5,558
Dairies inspected	433	Inspections of milk plants and licensed dealers	323
Scoring above 50 *	360	Bacteriological examinations	145
Scoring below	73	Country creamery inspection	17
With milk rooms	367	Sediment tests	1,371
Without milk rooms	66		
Inactive	1		

* Passable mark.

FOOD INSPECTION DIVISION.

March, 1930.

District inspections	4,698
Reinspections	459
Market inspections	1,529
Terminal inspections	602
Vehicle inspections *	5,790
Stand inspections	2,235
Complaints	45
Notices to abate	194
Condemnations	29,801 pounds
Samples taken	11
Pedler Service:	
Numbers assigned	120
Licenses certified	96
Vehicles approved	623
Licenses to remove bones	28

* This represents weekly inspections by four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	2,998	Parts condemned	1,213
Calves inspected	8,375	Animals condemned	151
Swine inspected	3,500	Total of meat condemnations (pounds)	25,689
Sheep inspected	601		

SANITARY DIVISION.

Original inspections	4,018	Complaints investigated	752
Causes for action found	2,802	Nuisances abated	2,403
Reinspections	8,698	Routine inspections	3,157
Legal notices served	249		

DISEASE TRANSMISSION.

Human communication from one person to another is the most potent factor in the spread of all diseases and it is unfair and almost criminal in some cases for persons ill with a sore throat or rash on body to mingle in the company of other normal, healthy individuals — as at a dancing party, classroom, workshop, theater, or other place or places where many people congregate. The stuffy, ill-ventilated trolley car or train coach with its human freight likewise may harbor dangerous germs.

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	19	148	121	269	28	19	47
East Boston	13	83	116	199	18	15	33
North End	13	53	133	186	16	58	74
West End	13	38	65	103	3	4	7
South Boston	13	79	78	157	20	14	34
Boston Dispensary	8	18	4	22	7	—	7
Brighton	9	11	14	25	2	—	2
Charlestown	8	31	53	84	5	9	14
Codman Square	12	80	92	172	4	10	14
Hyde Park	8	29	35	64	3	7	10
Roxbury	4	68	49	117	10	12	22
Arcadia Street	5	11	44	55	1	7	8
Totals	125	649	804	1,453	117	155	272

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	38	30	24	104
East Boston	35	12	—	54
North End	54	12	—	55
West End	5	3	135	—
South Boston	17	23	—	86
Boston Dispensary	—	2	—	—
Brighton	—	1	—	—
Charlestown	31	—	—	35
Codman Square	10	4	—	—
Hyde Park	14	10	—	—
Roxbury	8	4	—	65
Arcadia Street	6	1	—	—
Totals	218	102	159	399

HEALTH UNIT SOLARIA.

	Number of Children Examined	Number of Clinics Visited.
South Boston: March 3, 10, 17, 24, 31	104	5
East Boston: March 5, 12, 19, 26	104	4
North End: March 7, 14, 21, 28	118	4
Charlestown: March 4, 11, 18, 25	114	4
Roxbury: March 6, 13, 20, 27	82	4
Totals	522	21

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING MARCH, 1930.

Classification.	Number.	Percentage.
After death	17	32.08
Seven days or less	4	7.55
Eight to fourteen days, inclusive	3	5.66
Fifteen to twenty-one days, inclusive	3	5.66
Twenty-two to thirty-one days, inclusive	2	3.77
Within First Month. (Total)	29	54.72
Within second month	—	—
Within third month	—	—
Within fourth month	1	1.89
Within fifth month	1	1.89
Within sixth month	—	—
Within seventh month	—	—
Within eighth month	2	3.77
Within ninth month	2	3.77
Within tenth month	3	5.66
Within eleventh month	2	3.99
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	40	75.47
Within second year	6	11.32
Within third year	—	—
More than three years	7	13.21
Grand totals	53	100.00

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF MARCH, 1930.

Public Sanatoriums.	Admitted.	Discharged.
Boston Sanatorium	30	17
North Reading State Sanatorium	8	4
Lakeville State Sanatorium	5	1
Rutland State Sanatorium	1	4
Westfield State Sanatorium	2	—
Tewksbury	5	—
Totals	51	26

Private Sanatoriums.	Admitted.	Discharged.
Doctor Lapham's Sanatorium	3	1
Plymouth County Sanatorium	—	1
Channing Home	—	—
United States Veterans' Hospital	13	2
Doctor Crane's Sanatorium	3	4
Totals	19	8

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, March, 1930.

Inspections	378
Physical examinations	330
Schick tests given	17
Toxin-antitoxin administrations	183
Toxoids	120
Vaccinations	108
Vaccination certificates	53
Day Nursery visits	21

Report of Child Health Conferences, March, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	199	22	221	23	2	25	4	55
31 Lincoln street, Brighton	84	10	94	12	3	15	4	24
Charlestown Municipal Building	332	26	358	40	1	41	9	40
Codman Square Library	458	48	506	70	10	80	9	56
Columbia Road Municipal Building	354	12	366	40	2	42	10	37
1 Arcadia street, Dorchester	326	45	371	32	2	34	8	46
East Boston Health Unit	297	25	322	59	3	62	9	37
Hyde Park Municipal Building	153	18	171	23	1	24	8	21
Curtis Hall, Jamaica Plain	226	13	239	30	2	32	4	60
41 North Margin street	187	63	250	29	3	32	8	31
Roslindale Municipal Building	214	23	237	27	—	27	5	47
Children's Hospital	126	12	138	21	1	22	4	35
1049 Columbus avenue	325	5	330	35	—	35	8	41
Roxbury Health Unit	531	34	565	88	10	98	13	44
133 Dorchester street, South Boston	257	52	309	43	8	51	8	39
122 Tyler street	60	18	78	7	4	11	4	20
Shawmut Avenue Municipal Building	109	16	125	6	1	7	3	42
57 East Concord street	263	8	271	41	2	43	5	54
17 Blossom street	237	21	258	26	—	26	9	29
Totals	4,738	471	5,209	652	55	707	132	40

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, MARCH, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	7	3	3	13	7
31 Lincoln street, Brighton	2	2	1	5	3
Charlestown Municipal Building	10	1	—	11	13
Codman Square Library	30	19	21	70	12
Columbia Road Municipal Building	3	12	14	29	13
1 Arcadia street, Dorchester	33	27	29	89	29
East Boston Health Unit	—	—	—	—	14
Hyde Park Municipal Building	4	5	3	12	5
Curtis Hall, Jamaica Plain	2	3	2	7	6
41 North Margin street	—	—	—	—	7
Roslindale Municipal Building	2	2	2	6	10
Children's Hospital	8	7	8	23	14
1049 Columbus avenue	4	5	6	15	27
Roxbury Health Unit	15	19	20	54	18
133 Dorchester street, South Boston	—	—	—	—	—
122 Tyler street	11	9	3	23	1
Shawmut Avenue Municipal Building	—	—	1	1	8
57 East Concord street	10	7	6	23	4
17 Blossom street	—	—	—	—	1
Totals	141	121	119	381	192

DENTAL ACTIVITIES AT HEALTH UNITS, MARCH, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
Number of cases seen	1,152	1,039	883	956	1,223	908	1,020	7,181
Number of treatments:								
By dentists	2,369	2,045	1,369	1,490	1,415	1,225	1,025	10,938
By hygienists	210	90	214	86	225	6	236	1,067

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, MARCH, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
BOSTON DISPENSARY:								
Calls for district physician	59	.....	81	59	.....	.....	40	239
BOSTON LYING-IN HOSPITAL:								
Number of clinics	5	5	4	4	4	4	.....	26
Attendance	51	90	49	86	34	19	.....	329
New cases	8	20	10	17	8	1	.....	64
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,954	3,051	1,921	2,176	2,915	2,323	1,461	15,801
Cases referred	205	.....	68	2	.....	221	68	564
Diseases reported	73	.....	.....	14	.....	.....	10	97
Number of mothers' club meetings,	3	4	5	4	4	4	4	28
Attendance	40	67	52	73	56	91	69	379
STATE DEPARTMENT OF MENTAL DISEASES	.....	.....	.....	.....	.....	.....	3	3
Number of clinics	.....	.....	.....	.....	.....	.....	45	45
Attendance	.....	.....	.....	.....	.....	.....	9	9
INFANTILE CLINIC:								
Number of clinics	5	4	.....	4	5	3	.....	21
Attendance	44	20	.....	48	33	40	.....	185
New cases	.....	.....	.....	.....	.....	.....	.....	.....
FAMILY WELFARE SOCIETY:								
Number of staff meetings	3	4	.....	4	4	.....	.....	15
Attendance	24	36	.....	40	50	.....	.....	150
BOY SCOUTS OF AMERICA:								
Number of meetings	.....	4	.....	.....	.....	.....	.....	4
Attendance	.....	153	.....	.....	.....	.....	.....	153
AMERICAN RED CROSS:								
Home nursing classes	.....	.....	.....	4	.....	.....	4	8
Attendance	.....	.....	.....	74	.....	.....	33	107
JEWISH MATERNITY CLINIC:								
Number of clinics	.....	.....	.....	.....	.....	1	.....	1
Attendance	.....	.....	.....	.....	.....	2	.....	2
HEALTH DEPARTMENT:								
Refraction Service:								
Number of refractions	.....	.....	108	.....	.....	.....	.....	108
New glasses recommended	.....	.....	30	.....	.....	.....	.....	30
New cases	.....	.....	33	.....	.....	.....	.....	33
Nose and Throat Service:								
Number of clinics	.....	.....	.....	.....	.....	.....	3	3
Attendance	.....	.....	.....	.....	.....	.....	229	229
Operations recommended	.....	.....	.....	.....	.....	.....	57	57
Mothers' Club:								
Number of meetings	.....	1	1	1	.....	1	.....	4
Attendance	.....	11	24	12	.....	12	.....	59

NURSING SERVICE.

REPORT FOR MARCH, 1930.

HOMES VISITED			16,248
CHILD HYGIENE:			
Visits to new cases		1,664	
Visits to old cases		7,801	
			9,465
Included are:			
Wrong addresses	105		
Not seen *	778		
Absent visits	883		
COMMUNICABLE DISEASES:			
Visits to new cases		2,282	
Visits to old cases		3,084	
			5,366
Included are:			
Wrong addresses	78		
Not seen *	117		
Absent visits	195		
Ophthalmia visits		86	
TUBERCULOSIS:			
Visits to new cases		225	
Visits to old cases		3,795	
			4,020
Included are:			
Wrong addresses	22		
Not seen *	331		
Absent visits	353		
Positive case visits	1,803		
Contact case visits	1,397		
Suspect case visits	467		
	4,020		
MISCELLANEOUS VISITS:			
Infant death investigations		7	
Maternal death investigations		0	
Patients accompanied to hospital		14	
Visits to day nurseries		73	
Visits to parochial schools		462	
			556
Total number of visits			19,407
		Hrs.	Min.
Hours in station by nurses		3,490	
Hours at baby and pre-school conferences		1,772	45
Hours at tuberculosis clinics		945	5
Total number of hours		6,207	50

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

VITAL STATISTICS, MARCH, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING MARCH, 1930, WITH COMPARATIVE FIGURES FOR MARCH, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
ALL CAUSES:						
Total deaths	1,103	1,103	—	16.32	16.43	—.11
Nonresidents deducted	885	887	—2	13.09	13.21	—.12
BY AGE:						
Under one year	122	96	+26	1.80	1.43	+.37
One year to four years, inclusive	49	40	+9	.72	.60	+.08
Sixty years and over	484	477	+7	7.16	7.11	+.05
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births	1,304	1,222	+82	19.29	18.21	+1.08
b. Registered stillbirths	40	22	+18	.59	.33	+.26
Stillbirths per 1,000 live births and stillbirths	—	—	—	29.76	17.68	+12.08
c. Deaths of mothers from causes incident to childbirth	15	15	—	.22	.22	—
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	11.16	12.06	—.90
d. Deaths in first year per 1,000 live births	—	—	—	93.56	78.56	+15.00

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
VIOLENT DEATHS:						
Accidents*	57	42	+15	84.3	62.6	+21.7
Homicides	1	1	—	1.5	1.5	—
Suicides	13	8	+5	19.2	11.9	+7.3
Automobile accidents* (death in Boston)	—	—	—	—	—	—
MISCELLANEOUS:						
Alcoholism, acute or chronic (stated as primary)	19	13	+6	28.2	19.4	+8.8
Broncho-pneumonia	91	84	+7	134.6	125.1	+9.5
Cancer	126	121	+5	186.4	180.3	+6.1
Cirrhosis of the liver	9	9	—	13.3	13.4	—.1
Diabetes mellitus	18	19	—1	26.6	28.3	—1.7
Diarrhea and enteritis (under two years)	9	7	+2	13.3	10.4	+2.9
DEGENERATIVE DISEASES, SO CALLED:						
Arteriosclerosis	38	38	—	56.2	56.6	—.4
Cerebral hemorrhage	54	72	—18	79.9	107.3	—27.4
Heart disease	207	204	+3	306.2	303.9	+2.3
Nephritis, chronic	78	61	+17	115.4	90.9	+24.5

* Automobile accidents included in accident total.

NOTE: All figures for births and deaths are subject to slight increase.

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 100,000 OF POPULATION.		
		1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
REPORTABLE DISEASES:							
Anterior poliomyelitis	Cases	—	1	—1	—	1.5	—1.5
	Deaths	—	1	—1	—	1.5	—1.5
Cerebrospinal meningitis	Cases	10	5	+5	14.8	7.5	+7.4
	Deaths	5	3	+2	7.4	4.5	+2.9
Diphtheria	Cases	63	116	—53	93.2	172.8	—79.6
	Deaths	4	2	+2	5.9	3.0	+2.9
Influenza	Cases	15	71	—56	22.2	105.8	—83.6
	Deaths	2	9	—7	3.0	13.4	—10.4
Measles	Cases	1,091	86	+1,005	1,613.9	128.1	+1,485.8
	Deaths	7	3	+4	10.3	4.5	+5.8
Pneumonia (lobar)	Cases	194	254	—60	287.0	378.4	—91.4
	Deaths	65	78	—13	96.1	116.2	—20.1
Scarlet fever	Cases	346	367	—21	511.8	546.8	—35.0
	Deaths	6	4	+2	8.9	5.9	+3.0
Tuberculosis (pulmonary)	Cases	171	128	+43	252.9	190.7	+62.2
	Deaths	53	53	—	78.4	79.0	—.6
Tuberculosis (other forms)	Cases	26	36	—10	38.5	53.6	—15.1
	Deaths	7	6	+1	10.3	8.9	+1.4
Typhoid fever	Cases	4	1	+3	5.9	1.5	+4.4
	Deaths	—	1	—1	—	1.5	—1.5
Whooping cough	Cases	249	128	+121	368.3	190.7	+177.6
	Deaths	3	—	+3	4.4	—	+4.4

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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MOSQUITOES.

Methods of mosquito control have developed from efforts to promote public health. What we have learned about mosquitoes is interwoven with the story of the contest with malaria. A little more than three decades ago we were without any definite knowledge of a relation of mosquitoes to human diseases.

As a medical student, the writer recalls the skepticism with which his professor of pathology, Dr. Juan Guiteras, a recognized authority on tropical diseases, regarded the belief that a recently demonstrated living *protozoon* in the red blood corpuscles was the cause of malaria. To some of his students his doubts seemed too pronounced. In our inexperience we were therefore astonished to hear Professor Guiteras, within a few months, teaching that the characteristic phases of malarial fever were due to developmental stages in the life of this plasmodium. He had been convinced, and accepted the truth without reservation or apology for his former opinion. Professor Guiteras afterwards dedicated himself to the building up of the influence of the University of Havana. Incidentally, as Director of Public Health of the Republic of Cuba, he made the Pearl of the Antilles a shining example of what may be accomplished in the promotion of public health in a tropical country among tropical people. The world owes the benefits of medical progress

to those who can learn and forget as well as to those who have made brilliant discoveries.

Every new idea is not always sound. Wrong deductions may be made from perfectly good premises. From remote antiquity writers have recorded the belief in some sort of a relationship of swamps, stagnant water, mosquitoes and malaria. The part that the mosquito played in the matter was generally believed to be malevolent, but the writer recalls that before he ever heard of a malaria plasmodium he read a dissertation by a forgotten somebody who argued that the mosquito was created for the beneficent purpose of injecting into human beings a substance to neutralize the effects of the poisonous emanations from the lowlands and swamps.

Professor Guiteras did not tell us how the plasmodium got into the blood corpuscles. This matter especially had bothered him, yet he was doubtless aware of the centuries-old popular belief in Italy that mosquitoes were the cause of malaria.

At the beginning of the Spanish War the work of Ross, Manson and others, showing that the malaria parasites were transmitted by anopheles mosquitoes, had not yet been published. When the recruits were being mobilized and pumped full of malaria at Tampa preparatory to embarkation for Cuba it was generally assumed that malaria was caused by emanations from the ground in malarial regions. It was still being taught that great danger came from turning over the soil. Did not an outbreak of malaria occur in a district previously free from malaria when trenches were dug to lay the pipes of the metropolitan water system into Boston? Then, too, there were the well-authenticated instances in the Roman Campagna and elsewhere of a soil so impregnated with the malarial poison that laborers digging in ditches were suddenly overpowered and fell dead in their tracks. In extenuation of these old teachings it is only fair to say that even today eminent authorities on tropical diseases still concede that there is a mysterious connection between digging in certain localities and the development of malaria which has never been satisfactorily explained.

From the studies and experiments of the investigators in the latter years of the last century the solution of the malaria problem in any locality appeared to be the extermination of mosquitoes, with screening as a protective expedient until mosquito destruction was accomplished. Our responsibilities in Cuba and the acquisition of the Philippines furnished excellent opportunities to put this idea into effect and also brought out an appreciation of the difficulties of so suppressing mosquitoes in a district drenched with a tropical rainfall as to reduce the prevalence of malaria. Then came the

building of the Panama Canal. The mosquito suppression campaign in the Canal Zone was formulated by one of the clearest headed thinkers who has ever given attention to the prevention of disease, a trained engineer as well as a physician of exceptional experience with tropical diseases, Dr. Henry R. Carter of the United States Public Health Service. After the army had supplanted civilians in the Zone government and in control of the canal construction the anti-mosquito work was placed under the direction of Major Gorgas of the Medical Corps of the United States Army, who, in connection therewith, had the benefit of the services of the capable engineer, Le Prince.

The spectacular features of antimalarial work in the Canal Zone — the methods of draining off the tropical rainfall, the extensive oiling, the cutting away of vegetation which might serve as a shelter for mosquitoes, the prevention of collections of rubbish offering water-tight receptacles for the breeding of mosquitoes — have, however, tended to obscure some other important factors in the reduction of the importance of malaria among those who lived and worked on the Isthmus.

The building of the canal was a tremendous construction proposition and its organization and personnel made practicable methods for the carrying out, at the same time, of anti-mosquito work that are not ordinarily feasible. Furthermore, expense was a secondary consideration.

All the elaborate and expensive anti-mosquito work in the Canal Zone did not prevent malaria. Infection was common, especially among those out in the field, who, because of their own carelessness, or for other reasons, sometimes failed to get the regular benefit of protective screens. The results of infection were, however, usually far different from the malarial fevers which prevailed on the Isthmus in the days of the French. Talk about "Chagres Fever" was heard less and less and Monkey Hill passed off the map.

The outcome of the implantation of malarial parasites in a human being depends not only upon the breed of the parasites, but upon the person's bodily condition, which may be favorable or unfavorable to serious consequences for reasons which are not understood. The chief reason, however, why we did not see a repetition of the former results of malaria infection on the Isthmus was because we had learned to treat malaria effectively and had in the Canal Zone a medical organization which assured such treatment. Quinine properly given kills malaria parasites, as does arsenic also, and cures the disease, provided, of course, that the patient be not too badly poisoned or structurally damaged to recuperate. Among other important matters, we had learned that it was essential to

have the patient's blood saturated with quinine when the parasite reaches the developmental stage which ruptures the blood corpuscle. The dosage of quinine must be sufficient and properly timed. Old chronic cases of malaria may have reason to complain that quinine does them no good. Insufficient and improper dosage may have served to immunize their parasites to the action of quinine.

The organism causing malaria in man is regarded biologically as a mosquito parasite which passes certain of its developmental stages in human beings — possibly in other creatures as well. Excluding this last possibility, it would seem that malaria might be prevented in any locality either by destroying the anopheles mosquitoes or by killing with quinine the malaria parasites in infested human beings. The administration of quinine to human beings with this object in view has been tried out in various parts of the world, as supplementary to anti-mosquito measures or where such measures have seemed impracticable. The chances of success have appeared to be particularly favorable in regions as in our Southern States where the people may be dosed with quinine during the winter months when most of the mosquitoes are dead or quiescent and their breeding suspended.

Beneficial effects on the health of the population have been apparent in some places where this scheme has been tried out, but there are certain factors which tend to make results disappointing. The effective administration of quinine to a large part of the inhabitants of a district presents practical difficulties, especially if the parasites are more or less immunized to the action of quinine and the people's loss of faith in its power to do any good is coupled with that feeling toward quinine which can be appreciated by any one who has taken it long and often. Another matter for practical consideration in this connection is the curious phenomenon of latency which malaria parasites may take on in man. After a period of activity all signs of the organisms may disappear from the blood and give no demonstrable evidence of their existence perhaps for years and then suddenly reappear and give rise to the symptoms of an acute infection, usually when the person has overtaxed his physical strength or has contracted some other sickness.

Mosquito control measures such as were demonstrated in the Canal Zone are expensive. Local economic conditions may make their cost prohibitive to any community. They may also be inapplicable. A gloomy looking health officer once came to the writer looking for help in the solution to a bad malaria problem in his district in Central India where the temperature ranged from 116 degrees in summer to 75 degrees in winter, with a rainfall of about 120 inches a year and the chief industry the cultivation of rice. Or,

to take another example. A certain community mosquito nuisance in seasons when the rainfall was frequent was found to be due to the breeding of mosquitoes in the water-filled footprints of cattle in low pasture land whose drainage or oiling was impracticable by reason of certain legal complications to which it would lead.

Probably more often than otherwise, attempts on the part of cities or towns to suppress mosquitoes have really resulted in a waste of money. Apparent success in a single season may be due to a fortunate distribution of the season's rainfall. Appropriations for the purpose of mosquito control are often inadequate. The men who are considered available to direct the work usually lack the training and experience either to estimate the amount of money which could be profitably expended or to get results which justify their cost. In municipal undertakings of this character, there are certain obvious factors necessary to any measure of success which nevertheless are likely to be disregarded. Breeding preventive measures must be in operation in the spring before breeding starts. Mosquitoes hatched in the spring live practically through our short summer season. Mosquito suppression calls for an extension of the regular routine processes of municipal sanitation. It is to be regarded as the duty of every sanitary inspector to note and report the presence of mosquitoes and try to determine their source. No community is likely to be free from mosquitoes which allows householders or shopkeepers to maintain collections of old tin cans, bottles and other rubbish on their premises. A community mosquito nuisance may be entirely due to breeding in the rainfall which collects in an unobserved hollow high up in the crotch of a tree and not to an outlying marshland or swamp. The novice looks to the windward for the source of a mosquito nuisance. It is an accidental occurence when a mosquito rises from cover and is blown before a strong wind. Myriads of mosquitoes will work to the windward against a gentle breeze which brings them the scent of their prey.

Efforts have been made to utilize the natural enemies of mosquitoes in bringing about their suppression. Ducks, minnows or other small fishes, and the larvæ of dragon flies have all proved to be useful in destroying the aquatic forms of mosquitoes, under certain conditions. The dragon fly catches adult mosquitoes on the wing, but the greatest enemy of the flying mosquito is undoubtedly the bat. The success which has been attained in Texas in establishing large colonies of bats for this purpose in special bat towers provided at public expense would seem to make the scheme well worth considering in connection with plans to mitigate the mosquito nuisance of the New England coastal marshes.

A notable advance in anti-malarial work has come from the use of a dusty mixture containing Paris green instead of oil in spraying anopheles-breeding waters. At first, the Paris green was mixed with a fine earth dust, like street dust, in the proportion of about 100 parts of the latter to one of the former. Afterwards, dehydrated lime (calcium oxide) came to be used in the place of street dust. More recently, stearates of calcium and aluminum have been recommended for the purpose as tending to keep Paris green afloat longer.

The dusty Paris green mixture is effective in destroying anopheles larvæ. It lends itself better to distribution than oil, sometimes being spread by aeroplanes, and is so much cheaper than oil that it makes extensive antimalarial work practicable for communities for which the cost of oil spraying would be prohibitive.

All mosquitoes lay their eggs in water. The active larvæ or "wrigglers" which hatch from the eggs must come to the surface of the water to breathe. The thin film of oil on the water shuts off their access to air and they drown. The spraying with Paris green and dust does not deprive mosquito larvæ of air, but leaves floating on the surface of the water a dusty poisonous mixture which the anopheles larvæ will swallow with fatal results. The anopheles larvæ stay at the surface to feed as well as to breathe and apparently will swallow anything within reach. The larvæ of other species of mosquito do not eat the floating dust and, consequently, while the Paris green mixture is effective in anti-malaria work it is useless in combating the ordinary culex mosquito nuisance in this region.

Recently greater attention has been paid to entomological studies of the life, habits and peculiarities of different species or varieties of mosquitoes with view of utilizing such knowledge to facilitate the destruction of the particular species or variety which may be responsible for the mosquito problem in any locality.

The habits or proclivities of insects offer a wide field for study. One may escape the attention of certain annoying tropical insects by taking a half teaspoonful of sulphur a day. Sulphur is excreted by the skin. Mosquitoes do not object to sulphur, neither do "cooties" which will even bite through a layer of sulphur ointment. The *pediculus corporis* does, however, favor some individuals and exhibits dissatisfaction with others. The *Cimex lectularius*, otherwise the bedbug, refuses to bite some persons. There are non-biting species of mosquitoes and even the females of biting species may appear to exhibit a preference to certain human beings when a mixed company of human beings offers a choice.

Recent studies have not only added greatly to our knowledge of mosquitoes but have made it necessary to revise some former

teachings regarding their life history and proclivities. There is still some dispute regarding the varieties of anopheles which may be dangerous.

Mosquitoes will not develop where the surface of the water is agitated. Quiet or stagnant water is not, however, essential. Some species of mosquitoes may develop in running water. The factors affecting the aquatic development of mosquitoes are not fully understood. Attempts to propagate the anopheles in the Army Laboratory at Augusta, Georgia, during the World War failed, until water in which anopheles were found actually breeding under natural conditions was brought into the laboratory for the purpose.

The natural food of mosquitoes are the juices of vegetation. Many species, however, need no persuasion to induce them to suck the blood of animals or human beings. With some others, including some dangerous varieties, the desire for human blood appears to be an individual peculiarity, as in the case of the man-eating tiger. Most if not all species of mosquitoes have a regular time of day for feeding, although some will not refuse to eat between meals. The hour of preference during the day, or night, varies with different species, or even with different varieties of mosquitoes. Success in stopping outbreaks of yellow fever has been largely due to the early discovery that the dangerous mosquitoes, the infected insects, were to be found in or about the houses in which cases of the disease had occurred. It was recognized that widespread measures for the destruction of the *Aedes Egypti* was unnecessary for the control of yellow fever. Recently it has come to be realized that this is to a great extent true of malaria. The restriction of mosquito destruction to the vicinity of human habitations may not, however, prove as effective in controlling malaria as it has yellow fever, for two reasons. The *Aedes Egypti* can obtain the infective agent of yellow fever from a human being only for a brief period when the person is too sick to travel about. The malarial parasites may remain in a person's blood indefinitely and wherever he may travel he may infect anophelas mosquitoes. Then, too, there are certain known varieties of anopheles which appear at human habitations only to feed and remain concealed at some distance the rest of the time.

The anopheles mosquito is responsible for malaria. Other mosquitoes are accountable for yellow fever, dengue and for filiariasis, the cause of elephantiasis. With these diseases the mosquito plays more than the role of a mere carrier. Their infective agents pass through a developmental stage in the body of the mosquito.

Experience has shown that the danger on the New England coast of the spread of any diseases for which mosquitoes may be responsible, including malaria, is practically negligible. The wound made by a mosquito may become infected but the same is true of the stings and bites of our other local insects. Appropriations for the suppression of mosquitoes in Eastern Massachusetts cannot be justified on the ground that mosquitoes are a menace to health. Mosquitoes are simply a nuisance, and expenditures for their control must be justified by increased property values or other economic benefits.

In fact, our coastal marsh mosquitoes which give rise to complaints from adjacent summer resorts probably serve indirectly as a protection to health. In our summer colonies suitable measures for the disposal of garbage and excreta are exceptional. As a consequence flies are abundant. Their proclivity to carry infective material to which they have access makes them a definite menace to health. Because of the mosquitoes, screening becomes a necessity and as a consequence flies also are shut out of habitations and prevented from contaminating food.

In the "Scientific American" for April, 1930, there is an article on mosquitoes,* which recalls the old suggestion that the body of the mosquito might contain an antidote to "malarial poison."

Dr. Theodore Krysto, the author, who held important administrative positions under the Russian Imperial Government, is a man of wide experience and recognized professional attainments. As the result of his personal observations and study, he has concluded that the peculiar local exemptions of certain districts, or of some communities, from malaria, occasionally to be observed in malarial regions, is due to the local cultivation of leguminous plants, including beans, red clover and alfalfa. He believes that malarial parasites do not preserve their infective character for human beings in the bodies of anopheles mosquitoes which have fed on the juices of leguminous plants.

Public health officials who have had to deal with malarial problems will doubtless recall deductions from their own experience which appear to be irreconcilable with Doctor Krysto's theory, but before discarding this idea as unworthy of consideration it is to be observed that the apparently well-justified deductions of his time regarding the pathology of malaria were what made the expert, Professor Guiteras, so skeptical regarding the causal relation of a blood parasite to malaria.

Malaria formerly prevailed more extensively in this country than it does today. It was once a scourge where now for years it

* Can the World Banish Malaria? By Theodore Krysto, M. D. "The Scientific American," April, 1930.

has been unknown. The reasons usually offered for its disappearance do not furnish a plausible explanation. It may be true that the land has been drained, cultivated, or built upon, but anopheles mosquitoes are still to be found in places where malaria formerly prevailed, as well as in others where malarial fever has seldom, if ever, been seen.

Anopheles mosquitoes can usually be found around Boston. The only time the writer ever tried to identify mosquitoes on the Boston waterfront he found among them two varieties of the anopheles. Whether or not brought in since the preceding winter by shipping, they were so numerous as to make it probable that they were breeding in the vicinity. After an unsuccessful search for anopheles larvæ in the mosquito infested marshes along the Charles river in Boston a few years ago, inspectors from the Boston Health Department found them in abundance in a collection of water on the grounds of a public institution some distance away from the river.

About sixteen years ago an officer in the United States Public Health Service undertook a study of the blood of arriving alien immigrants with view to determining the frequency of infestation with malarial parasites. His work was carried on for two years and he examined a large number of arriving aliens. His results seemed to justify the conclusion that 20 per cent of our Greek immigrants and about 6 per cent of the Southern Italians were carriers of forms of malarial parasites which presumably made the immigrants capable of spreading the disease. The parasites of the estivo-autunnal form of malaria were not uncommon. In other words, year after year, thousands of immigrants infested with malaria parasites have been pouring into this country and going to regions where malaria formerly prevailed and where anopheles mosquitoes are still to be found. Local epidemics of estivo-autumnal malaria in districts where Greek or Italian immigrants have gone certainly have been rare if they ever occurred. Local epidemics of tertian malaria in connection with the arrival of recent immigrants have been very infrequent, but have been observed often enough to demonstrate that there is a possibility of their occurrence when and where there are to be found certain favorable conditions which we are yet unable to specify.

Even though it be conceded that the cultivation of leguminous plants may solve a malaria problem such plants neither kill mosquitoes nor keep them from hunting for blood. To meet this situation, Doctor Krysto has another suggestion to offer. He calls attention to experiments of the French naturalist J. Legendre, described in the Comptes Rendus de L'Academie des Sciences, Paris, 1924,

1927 and 1929. Legendre has endeavored to utilize practically two facts. There are some species or varieties of mosquitoes which do not sting human beings and there are larvæ of some mosquitoes which eat the larvæ of other mosquitoes. Legendre claims to have found in France even a variety of the anopheles maculipennis which does not sting men. Finding a kind of mosquito which he calls the Breton Culex, and which Legendre found would displace other kinds of mosquitoes and would not sting human beings, he planted their eggs in 1923 in places where the Culex pipiens and the Culex hortensis were a nuisance to the inhabitants. As the result, the latter mosquitoes were completely replaced by the Breton Culex. Legendre admits that the Breton Culex will sting animals, a proclivity which does not make it entirely unobjectionable.

Whether or not the apparent success of Legendre's experiments could be duplicated in our own coastal marshes, it nevertheless suggests the interesting possibilities of entomological studies in the control of mosquitoes. Legendre's work is but one example of the kind of results which recent studies of the life history and habits of different kinds of mosquitoes are producing. These discoveries may well make us hesitate to indorse expensive dyking and draining projects which offer no prospect of increase in land values or other economic benefits that can justify the cost. Moreover, business prudence dictates that we should first make sure that a community mosquito nuisance will be removed by draining an outlying marsh. The cause of the nuisance may be found within the community limits, perhaps in the backyards, the house gutters, the wells or the cesspools of the complaining householders themselves.

EXPECTATION OF LIFE.

According to the computations of the Metropolitan Life Insurance Company, a person who reached the age of fifty-two in 1928, had an expectation of life of 19.32 years. This was not quite so good as for persons who reached that age in 1927 or in 1926, for whom the expectation of life was respectively 19.99 and 19.57 years.

Neither did the sixty-two-year-olds in 1928 appear to have as good prospects in 1928 as in 1927 or 1926. According to the computations those who reached sixty-two in 1928, had an expectation of life of 12.82 years, while those who reached the same age in 1927 and 1926 had respectively a statistical prospect of 13.39 and 13.00 years ahead of them.

Even for persons who reached the age of thirty-two in 1928, the statistical prospects were not so good as for those who reached that age in 1927 or in 1926.

MORE COMPLETE DEATH RETURNS.

The following letter has been sent to all physicians in the City of Boston:

CITY OF BOSTON,
HEALTH DEPARTMENT,
CITY HALL ANNEX.

DEAR DOCTOR,— Considerable difficulty is being experienced in obtaining complete medical information on the new form of death certificate (R. 301A) which superseded all other forms on January 1, 1930, and a copy of which is inclosed.

This form calls for a statement of the *date of onset* of any disease listed as either the cause or contributing cause of death. Many physicans who sign death certificates do not give this information and I am taking this opportunity to ask your cooperation in the matter of securing a complete medical certificate of death.

To be complete the physician should answer Items 2 and 7 and Items 18 to 20, inclusive, as defined in chapter 46, section 9, of the General Laws, a quotation from which, appears on the reverse side of the death certificate.

Assuring you of my appreciation of your cooperation in the past and trusting that I may have a continuance of it in the future, I am,

Very truly yours,

F. X. MAHONEY, M. D.,
Health Commissioner.

SUMMARY OF WORK, APRIL, 1930.

ADMINISTRATION DIVISION.

Prosecutions	4	Personnel:	
Legal notices	237	Permanent appointment	1
Settlements:		Resignation	1
Total cases	163	Order issued	1
Notices	105		
Bills	58		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	1,258	Ice cream manufacturers	13
Denatured alcohol	326	Grease	36
Hen licenses approved	295	Garbage transportation	16
Lying-In Hospitals approved	3	Dump approved	1
Manicure-massages granted	57	Milk	3,031
Ice cream dealers approved	1,962	Pedlers	141
Ice cream dealer disapproved	1	Offensive trades	2

MEDICAL DIVISION.

Reported cases	4,233	Visits:	
Nonresidents	145	By V. D. investigator	343
Deaths investigated	36	By medical inspectors to cases of communicable disease	825

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	49	
Positive for release	21	
Negative for diagnosis	591	
Negative for release	81	
No growth	56	
	—	798
DARK FIELD:		
Positive		1
GONORRHEAL OPHTHALMIA:		
Negative		68
GONORRHEAL URETHRITIS:		
Positive	150	
Negative	786	
	—	936
GENITO URINARY TUBERCULOSIS:		
Positive	2	
Negative	14	
	—	16
MALARIA:		
Negative		2
MISCELLANEOUS EXAMINATIONS:		
Positive	2	
Negative	45	
Unclassified	213	
Unsatisfactory	1	
	—	261
TUBERCULOSIS:		
Positive	30	
Negative	363	
Unsatisfactory	20	
	—	413
TYPHOID:		
Negative	49	
Atypical	1	
Unsatisfactory	1	
	—	51
SYPHILIS:		
Positive	105	
Negative	1,036	
Unsatisfactory	14	
Doubtful	28	
	—	1,183
Bacteriological milk examinations		788
Bacteriological ice cream examinations		3
		4,520

Karo for organisms, 1; sputum for T. B., 1; swab for Vincent's angina, 5; blood cultures, 2; cultures for meningitis, 7; rock salt for excreta, 1; candy for organisms, 1; blood for typhus, 2; urine for eberthella typhi, 15; feces for eberthella typhi, 15; urines for analysis, 211.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during April, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H	12.34	3.60	8,000
Antetomasso, Peter	12.81	3.95	10,000
Bancroft, Hugh *	13.64	4.50	14,000
Brandley, T. J. & P. J.	12.59	3.87	650
Buxton, William E.	13.66	4.45	11,000
Casey, James D.	12.75	4.03	10,000
Cashin, J. F., & Co.	12.35	3.85	29,000
Chapin, George L.	12.58	3.80	10,000
Clark, Levi	12.30	3.91	12,000
Corkery, John J.	12.59	3.95	12,000
Cosgrove, Martin S.	12.65	3.60	7,000
Daley, John	12.35	3.80	8,000
Dean, Louis W.*	13.07	4.13	12,000
Deerfoot Farm Company	12.79	4.09	13,000
Denehy, Timothy	12.79	3.93	12,000
Driscoll, William B., Company	12.37	3.81	13,000
Elm Spring Farm Company	12.21	3.69	16,000
Ferguson, Malcolm D	12.58	3.79	9,000
Garfield, Mason	14.73	5.65	2,300
Garvin, Charles	11.78	3.40	1,200
Giroux, J. E. & H. J.	12.54	3.87	17,000
Griffin, Joseph L.	12.70	3.87	14,000

* Milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Gushee, Chester W.	12.53	3.78	13,000
Hampden Creamery Company	12.65	3.70	8,000
Herlihy Brothers, Inc.	12.35	3.75	19,000
Hickey, J. B	12.19	3.73	14,000
Holden, John E.	12.43	3.86	22,000
Hood, H. P., & Sons, Inc.	12.42	3.82	15,000
Hutchinson, Frank T.	12.83	4.28	20,000
Jones, William T., Company	12.78	4.09	11,000
Kendall Brothers	12.33	3.68	11,000
Kingston Brothers	12.51	3.78	8,000
Knapp, George J.	12.77	3.90	26,000
Lang Brothers	12.32	3.70	13,000
Larsson, Charles	12.33	3.60	29,000
Lyndonville Creamery Association	12.74	3.98	28,000
Lyons, William A.	1 .59	3.70	29,000
Manning, Harriet	12.24	3.82	11,000
McAdams, J. F., & Brothers, Inc.	12.59	3.99	13,000
McKernan, John	12.52	3.75	32,000
Munchback, Albert W.	12.40	3.73	39,000
New England Creamery Products Company *	12.51	3.91	20,000
Robinson, A. J.	12.90	3.96	29,000
Schuster, Adam	12.29	3.78	25,000
Seven Oaks Dairy Company	12.47	3.85	25,000
Shick, Jacob	12.29	3.63	39,000
Somerset Farms Creamery Company	13.08	4.15	8,000
Sterling Farms Milk Company	12.50	3.82	11,000
Stone, H. L.	12.41	3.93	2,000
Stuart, W. E., Company	12.36	3.78	35,000
Turner Centre System	12.31	3.76	10,000
United Farmers Co-operative Creamery Association, Inc.	12.62	3.96	19,000
Walker-Gordon Laboratory Company †	12.15	3.80	None.
Weiler, E., & Sons	12.53	3.81	10,000
Westwood Farms Milk Company	12.33	3.71	28,000
White Brothers	12.65	3.96	12,000
Whiting Milk Companies	12.34	3.74	18,000
Whittemore, W. D.	12.57	3.76	12,000
Williams, Edward C.	12.61	4.15	2,000
Wiswall, Granville A.	12.56	3.92	28,000
Woodland, Charles L.	13.10	4.50	13,000

* Milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic and Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.31	3.83	15,000
Brown, M., & Sons.....	Whiting Milk Companies...	12.13	3.67	16,000
The Cloverdale Company.....	Hood, H. P., & Sons, Inc...	12.37	3.85	20,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.32	3.77	49,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Association.	12.78	4.08	10,000
Morgan Brothers Company.....	New England Creamery Products Company.*	12.61	4.05	22,000
Winer, M., Company.....	M. Winer Company.....	12.67	4.05	26,000

* All milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.59	4.50	7,000
Cosgrove, Martin S.....	13.59	4.60	6,000
Dean, Louis W.*.....	13.34	4.20	8,000
Elm Spring Farm Company.....	12.55	4.08	12,000
Griffin, Joseph L.....	13.45	4.45	8,000
Gushee, Chester W.....	12.65	4.05	5,000
Herlihy Brothers, Inc.....	12.70	4.15	8,000
Hood, H. P., & Sons, Inc.....	12.66	4.20	6,000
Jones, William T., Company.....	13.01	4.37	9,000
Lyndonville Creamery Association.....	13.58	4.60	8,000
McAdams, J. F., & Brothers, Inc.....	12.77	4.40	10,000
Robinson, A. J.....	13.68	4.68	14,000
Seven Oaks Dairy Company.....	13.06	4.20	11,000
Sterling Farms Milk Company.....	13.06	4.40	9,000
Turner Centre System.....	13.20	4.43	7,000
Weiler, E., & Sons.....	13.06	4.23	13,000
White Brothers.....	12.88	4.45	8,000
Whiting Milk Companies.....	12.67	4.07	9,000
Woodland, Charles L.*.....	13.16	4.40	6,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
Cedar Hill Farm, Inc.	Own	13.30	4.50	2,000
Hood, H. P., & Sons, Inc.*	Own	13.07	4.40	1,100
New England Creamery Products Company.	Bellows Stock Farm	12.18	3.60	7,100
Turner Centre System	Alta Crest	12.67	3.90	1,900
Walker-Gordon Laboratory Company.*	Own	12.55	4.10	3,000
Whiting Milk Companies	Hampshire Hills	13.48	4.50	4,000

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
Cedar Hill Farm, Inc.	Own	12.57	3.90	None.
Hood, H. P., & Sons, Inc.*	Own	13.14	4.20	None.

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	417
Milk from stores	991
Vinegar	57
Ice cream	2
Drugs	1
Glazine	2
Glaze	1
Miscellaneous	2
Samples referred to Bacteriological Laboratory for examination:	
Milk	788
Ice cream	3
Court cases	4
Fines	$80

DAIRY DIVISION.

Total services	2,180	Total cattle inspected	6,946
Dairies inspected	307	Inspections of milk plants and licensed dealers	328
Scoring above 50 *	253	Bacteriological examinations	492
Scoring below	54	Country creamery inspection	12
With milk rooms	277	Sediment tests	1,025
Without milk rooms	30		
Inactive	15		

* Passable mark.

FOOD INSPECTION DIVISION.

April, 1930.

District inspections	3,507
Reinspections	292
Market inspections	1,202
Terminal inspections	655
Vehicle inspections *	4,719
Stand inspections	1,918
Complaints	38
Notices to abate	221
Condemnations	31,475 pounds
Samples taken	6
Pedler Service:	
Numbers assigned	171
Licenses certified	141
Vehicles approved	636
Licenses to remove bones	34

* This represents weekly inspections by four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	3,652	Parts condemned	1,215
Calves inspected	7,868	Animals condemned	130
Swine inspected	3,585	Total of meat condemnations (pounds)	28,041
Sheep inspected	675		

SANITARY DIVISION.

Original inspections	3,213	Complaints investigated	603
Causes for action found	2,172	Nuisances abated	2,149
Reinspections	7,385	Routine inspections	2,207
Legal notices served	223		

TONSILS, TEETH AND MATERNITY.

It is suggested by Jerwood (*British Medical Journal*) that maternity mortality might be reduced by eradicating focal sepsis, preferably before pregnancy has occurred. The tonsils are the commonest site of focal sepsis in young adults, and therefore in most pregnant women. Just as influenza and nasopharyngeal catarrhs constitute an overwhelming majority of the acute illnesses encountered in general practice, so chronic sepsis of the upper respiratory tract lies at the root of most chronic debilities. — *J. A. M. A.*

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	17	155	123	278	34	21	55
East Boston	13	71	54	125	13	3	16
North End	13	31	68	99	4	4	8
West End	13	30	83	113	4	2	6
South Boston	13	58	84	142	9	12	21
Boston Dispensary	9	14	6	20	5	—	5
Brighton	9	17	12	29	3	2	5
Charlestown	9	32	66	98	6	14	20
Codman Square	14	75	79	154	11	8	19
Hyde Park	9	47	33	80	4	1	5
Roxbury	5	55	66	121	7	17	24
Arcadia Street	5	8	27	35	—	—	—
Totals	129	593	701	1,294	100	84	184

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	37	25	41	161
East Boston	7	6	—	36
North End	4	3	—	33
West End	3	3	102	—
South Boston	27	9	—	72
Boston Dispensary	—	—	—	—
Brighton	—	2	—	—
Charlestown	21	6	—	30
Codman Square	17	9	—	—
Hyde Park	5	1	—	—
Roxbury	24	6	—	44
Arcadia Street	6	1	—	—
Totals	151	71	143	376

HEALTH UNIT SOLARIA.

	Number of Children Examined.	Number of Clinics Visited.
South Boston: March 3, 10, 17, 24, 31	83	4
East Boston: March 5, 12, 19, 26	127	5
North End: March 7, 14, 21, 28	118	4
Charlestown: March 4, 11, 18, 25	136	5
Roxbury: March 6, 13, 20, 27	118	5
Totals	582	23

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING APRIL, 1930.

Classification.	Number.	Percentage.
After death	17	32.08
Seven days or less	6	11.32
Eight to fourteen days, inclusive	2	3.77
Fifteen to twenty-one days, inclusive	2	3.77
Twenty-two to thirty-one days, inclusive	—	—
Within First Month. (Total)	27	50.94
Within second month	4	7.54
Within third month	7	13.21
Within fourth month	2	3.77
Within fifth month	3	5.66
Within sixth month	—	—
Within seventh month	—	—
Within eighth month	2	3.77
Within ninth month	—	—
Within tenth month	1	1.89
Within eleventh month	1	1.89
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	47	88.68
Within second year	4	7.54
Within third year	—	—
More than three years	2	3.77
Grand totals	53	99.99

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF APRIL, 1930.

Public Sanatoriums.	Admitted.	Discharged.
Boston Sanatorium	39	28
North Reading State Sanatorium	2	4
Lakeville State Sanatorium	5	4
Rutland State Sanatorium	2	6
Westfield State Sanatorium	4	8
Tewksbury	—	—
Totals	52	50

Private Sanatoriums.	Admitted.	Discharged.
Doctor Lapham's Sanatorium	4	5
Plymouth County Sanatorium	8	—
Channing Home	—	2
United States Veterans' Hospital	10	5
Doctor Crane's Sanatorium	2	2
Totals	24	14

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, April, 1930.

Inspections	426
Physical examinations	386
Schick tests	12
Toxin-antitoxin	253
Toxoids	36
Vaccinations	175
Vaccination certificates	65
Day nursery visits	16
Parochial schools	3
Conferences	5

Report of Child Health Conferences, March, 1930.

Station.	Number of Babies.	Number of Preschool (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	244	16	260	35	—	35	5	52
31 Lincoln street, Brighton	70	4	74	6	—	6	4	19
Charlestown Municipal Building	379	40	419	29	2	31	9	47
Codman Square Library	420	47	467	62	3	65	9	52
Columbia Road Municipal Building	324	16	340	37	2	39	9	38
1 Arcadia street, Dorchester	368	23	391	41	—	41	9	41
East Boston Health Unit	262	12	274	48	2	50	8	34
Hyde Park Municipal Building	252	35	287	36	1	37	9	32
Curtis Hall, Jamaica Plain	249	14	263	39	1	40	5	53
41 North Margin street	175	59	234	33	3	36	9	26
Roslindale Municipal Building	179	39	218	27	1	28	4	55
Children's Hospital	185	8	193	15	3	18	5	39
1049 Columbus avenue	403	22	425	63	1	64	9	47
Roxbury Health Unit	498	39	537	76	11	87	13	41
133 Dorchester street, South Boston	361	66	427	58	5	63	9	40
122 Tyler street	138	25	163	15	2	17	5	33
Shawmut Avenue Municipal Building	—	—	—	—	—	—	—	—
57 East Concord street	312	18	330	46	2	48	9	37
17 Blossom street	228	31	259	30	2	32	8	32
Totals	5,047	514	5,561	696	41	737	138	40

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, APRIL, 1930.

Station.	Toxin-Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	1	2	9	12	9
31 Lincoln street, Brighton	1	1	2	4	—
Charlestown Municipal Building	35	29	13	77	20
Codman Square Library	16	16	25	57	29
Columbia Road Municipal Building	5	4	2	11	23
1 Arcadia street, Dorchester	12	9	24	45	20
East Boston Health Unit	4	4	6	14	—
Hyde Park Municipal Building	6	7	2	15	11
Curtis Hall, Jamaica Plain	1	1	2	4	4
41 North Margin street	—	—	—	—	—
Roslindale Municipal Building	2	3	1	6	15
Children's Hospital	6	3	5	14	10
1049 Columbus avenue	3	3	2	8	25
Roxbury Health Unit	27	30	18	75	18
133 Dorchester street, South Boston	—	—	—	—	3
122 Tyler street	6	10	10	26	8
Shawmut Avenue Municipal Building	—	—	—	—	—
57 East Concord street	6	7	9	22	7
17 Blossom street	1	4	3	8	8
Totals	132	133	133	398	210

DENTAL ACTIVITIES AT HEALTH UNITS, APRIL, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
Number of cases seen	1,018	922	799	914	1,097	681	859	6,290
Number of treatments:								
By dentists	2,334	1,904	1,217	1,470	1,315	991	1,068	10,299
By hygienists	172	142	205	27	176	12	181	915

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, APRIL, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
BOSTON DISPENSARY:								
Calls for district physician	75	.....	95	83	.....	.....	31	284
BOSTON LYING-IN HOSPITAL:								
Number of clinics	3	5	5	4	4	5	.....	26
Attendance	21	77	56	75	32	21	.....	282
New cases	3	15	14	24	6	1	.....	63
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,955	2,962	1,894	2,479	2,956	2,489	1,351	16,086
Cases referred	273	34	70	.....	.....	242	113	732
Diseases reported	25	.....	1	37	.....	.....	12	85
Number of mothers' club meetings	4	5	4	3	4	4	5	29
Attendance	57	65	42	75	52	91	67	449
STATE DEPARTMENT OF MENTAL DISEASES:								
Number of clinics	.....	.....	.....	.....	.....	.....	5	5
Attendance	.....	.....	.....	.....	.....	.....	58	58
New cases	.....	.....	.....	.....	.....	.....	7	7
INFANTILE CLINIC:								
Number of clinics	4	3	.....	3	3	4	.....	17
Attendance	45	16	.....	46	27	45	.....	179
New cases	.....	.....	.....	.....	1	.....	.....	1
FAMILY WELFARE SOCIETY:								
Number of staff meetings	4	5	.....	5	5	.....	.....	19
Attendance	24	46	.....	43	64	.....	.....	177
BOY SCOUTS OF AMERICA:								
Number of meetings	.....	5	.....	.....	.....	3	.....	8
Attendance	.....	314	.....	.....	.....	20	.....	334
AMERICAN RED CROSS:								
Home nursing classes	.....	.....	.....	4	.....	.....	4	8
Attendance	.....	.....	.....	59	.....	.....	24	83
JEWISH MATERNITY CLINIC:								
Number of clinics	.....	.....	.....	.....	.....	4	.....	4
Attendance	.....	.....	.....	.....	.....	9	.....	9
New cases	.....	.....	.....	.....	.....	3	.....	3
HEALTH DEPARTMENT:								
Refraction Service:								
Number of refractions	.....	.....	115	.....	.....	.....	.....	115
New glasses recommended	.....	.....	27	.....	.....	.....	.....	27
New cases	.....	.....	24	.....	.....	.....	.....	24
Nose and Throat Service:								
Number of clinics	.....	.....	.....	.....	.....	.....	2	2
Attendance	.....	.....	.....	.....	.....	.....	348	348
Operations recommended	.....	.....	.....	.....	.....	.....	118	118
Mothers' Club:								
Number of meetings	1	.....	.....	1	.....	.....	.....	2
Attendance	11	.....	.....	15	.....	.....	.....	26

NURSING SERVICE.

REPORT FOR APRIL, 1930.

HOMES VISITED			16,946
CHILD HYGIENE:			
Visits to new cases		1,260	
Visits to old cases		7,103	
			8,363
Included are:			
Wrong addresses	75		
Not seen *	840		
Absent visits	915		
COMMUNICABLE DISEASES:			
Visits to new cases		3,414	
Visits to old cases		4,198	
			7,612
Included are:			
Wrong addresses	121		
Not seen *	163		
Absent visits	284		
Ophthalmia visits		140	
TUBERCULOSIS:			
Visits to new cases		175	
Visits to old cases		3,638	
			3,813
Included are:			
Wrong addresses	21		
Not seen *	297		
Absent visits	318		
Positive case visits	1,822		
Contact case visits	1,277		
Suspect case visits	396		
	3,813		
MISCELLANEOUS VISITS:			
Infant death investigations		2	
Maternal death investigations		0	
Patients accompanied to hospital		10	
Visits to day nurseries		62	
Visits to parochial schools		461	
			535
Total number of visits			20,323

	Hrs.	Min.
Hours in station by nurses	3,432	5
Hours at baby and pre-school conferences	2,030	
Hours at tuberculosis clinics	880	40
Total number of hours	6,342	45

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

VITAL STATISTICS, APRIL, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING APRIL, 1930, WITH COMPARATIVE FIGURES FOR APRIL, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease
All Causes:						
Total deaths	1,052	976	+76	15.56	14.54	+.02
Nonresidents deducted	834	775	+59	12.34	11.55	+.79
By Age:						
Under one year	112	112	—	1.66	1.67	—.01
One year to four years, inclusive	59	39	+20	.87	.58	+.29
Sixty years and over	444	415	+29	6.57	6.18	+.39
Infant and Maternal Mortality:						
a. Total registered live births	1,346	1,176	+170	19.91	17.52	+2.39
b. Registered stillbirths	39	25	+14	.58	.37	+.21
Stillbirths per 1,000 live births and stillbirths	—	—	—	28.16	20.81	+7.35
c. Deaths of mothers from causes incident to childbirth	13	11	+2	.19	.16	+.03
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	9.38	9.15	+.23
d. Deaths in first year per 1,000 live births	—	—	—	83.21	95.24	—12.03

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	47	50	—3	69.5	74.5	—5.0
Homicides	2	8	—6	2.9	11.9	—9.0
Suicides	15	15	—	22.2	22.3	—.1
Automobile accidents* (death in Boston)	10	14	—4	14.8	20.8	—6.0
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	7	12	—5	10.3	17.9	—7.6
Broncho-pneumonia	79	68	+11	116.9	101.3	+15.6
Cancer	112	97	+15	165.7	144.5	+21.2
Cirrhosis of the liver	4	7	—3	5.9	10.4	—4.5
Diabetes mellitus	25	14	+11	37.0	20.8	+16.2
Diarrhea and enteritis (under two years)	10	9	+1	14.8	13.4	+1.4
Degenerative Diseases, So Called:						
Arteriosclerosis	28	38	—10	41.4	56.6	—15.2
Cerebral hemorrhage	61	42	+19	90.2	62.6	+27.6
Heart disease	180	202	—22	266.3	301.0	—34.7
Nephritis, chronic	70	68	+2	103.5	101.3	+2.2

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, APRIL, 1930.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis..... Cases..	1	1	—	1.5	1.5	—
Deaths.	—	—	—	—	—	—
Cerebrospinal meningitis..... Cases..	7	6	+1	10.3	8.9	+1.4
Deaths.	7	4	+3	10.3	5.9	+4.4
Diphtheria..... Cases..	89	116	−27	131.6	172.8	−41.2
Deaths.	3	4	−1	4.4	5.9	−1.5
Influenza..... Cases..	17	24	−7	25.1	35.7	−10.6
Deaths.	3	2	+1	4.4	30.0	+1.4
Measles..... Cases..	2,009	85	+1,924	2,971.9	126.6	+2,845.3
Deaths.	11	—	+11	16.3	—	+16.3
Pneumonia (lobar)..... Cases..	207	138	+69	306.2	205.6	+100.6
Deaths.	83	43	+40	122.8	64.1	+58.7
Scarlet fever..... Cases..	371	301	+70	548.8	448.5	+100.3
Deaths.	8	5	+3	11.8	7.4	+4.4
Tuberculosis (pulmonary)..... Cases..	149	121	+28	220.4	180.3	+40.1
Deaths.	53	56	−3	78.4	83.4	−5.0
Tuberculosis (other forms)..... Cases..	30	30	—	44.4	44.7	−.3
Deaths.	5	4	+1	7.4	5.9	+1.5
Typhoid fever..... Cases..	1	8	−7	1.5	11.9	−10.4
Deaths.	1	—	+1	1.5	—	+1.5
Whooping cough..... Cases..	223	168	+55	329.9	250.3	+79.6
Deaths.	5	1	+4	7.4	1.5	+5.9

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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TEETH.

The quality of a child's teeth is largely determined by the general health and diet of its mother before the child's birth.

The rudimentary forms of the permanent teeth as well as the temporary teeth are to be seen in the baby's jaw at birth.

The baby is usually about six months old when its first tooth, one of the front teeth, appears through the gum.

By the time a child is eight months old it may be expected to have all four front teeth. At the end of the year, the temporary molars will begin to show. In the third year the child will have all twenty of its temporary teeth.

Even though the temporary teeth are destined to be shed, their preservation in a healthy condition while they last is essential for several reasons. The child needs all its teeth to chew the kind of food which it was intended to eat. Then, too, decaying teeth mean an unhealthy, infected mouth and diseased tonsils, and almost a certainty of infection of the permanent teeth so that they will decay also. Of equal importance is the fact that the normal development

of the child's jaws and face and the eruption of the permanent teeth in their proper places depend upon the retention of the temporary teeth until nature is ready to replace them. The loss of a temporary tooth means a shrinking of the jaw at that point and a disturbance and distortion of the regular process of growth.

If a mother has endowed her infant with the normal rudiments of teeth the child will grow to be an adult with good sound teeth, provided the child from birth is supplied with suitable food and also that the child escapes some unusual illness which prevents it for a long time from assimilating its food properly.

The first permanent teeth, the so-called six-year-molars, appear when the child is about six years old. They may be neglected because parents may think that they are temporary teeth. They should be carefully watched as they may be abnormally vulnerable to infection and decay by reason of developmental imperfections which may be due to the health or diet of the mother or of the child itself earlier in its life. Prompt attention by a dentist to a child's six-year-molars, which are starting to decay because of vulnerability due to developmental imperfections, may not only serve to save these teeth for life-long usefulness, but safeguard others against decay as well.

Suitable food is essential to the development of good teeth and to their preservation throughout life. Remarkable examples of good teeth may be found in persons who have never used a tooth brush. Cleaning and brushing the teeth from infancy cannot prevent the decay of teeth, but actual experience among civilized people has shown that it is a highly desirable procedure. Many observers hold that there is ground for the old popular belief that sugar is "bad for the teeth" and it is not improbable that other articles may enter into our diets in sufficient amounts to cause directly or indirectly mouth conditions unfavorable to the maintenance of teeth in good condition.

It is essential to the development of good teeth and to their preservation at any age that the person's diet should contain lime salts, but this is only one of the essentials. Cow's milk should be ideal for this purpose since it contains a proportion of lime salts that serves to build up the boney framework of an animal which may reach a weight of six hundred pounds or more in two years. But no matter how much of the chemical constituents of teeth a person may put into his stomach, it will not serve to build up good teeth or even to preserve them unless the diet contains also some element or elements popularly referred to as vitamines, which in some unknown way enable the body to utilize lime salts in the building up or in the

maintenance of the teeth. Without these vitamines the body will actually remove and absorb lime salts from the teeth no matter how much of the same sort of lime the person may constantly be putting into his stomach.

There are many sources from which human beings or animals may derive these vitamines from articles which enter into their diet. These "lime fixing" vitamines seem to be the same sort of food elements which are necessary to prevent the development of scurvy. Cow's milk itself may supply these vitamines, but it does not seem safe to depend upon milk to do so if it be cooked or pasteurized. Examples of splendid teeth to be seen both among human beings and animals prove that the necessary vitamines may be derived entirely from animal sources, but in the present state of our knowledge regarding the matter and in view of our modern dietary habits it seems safer to look to vegetable sources to assure a supply of the vitamines to enable the body to take up and "fix" lime for the growth and maintenance of teeth and for other purposes.

At present it is customary to look to orange juice or tomato juice or some other fruit or vegetable juices to serve this purpose as they are apparently capable of doing and to recommend the addition of one or more of the fruit or vegetable juices to the regular diet of adults as well as of milk-fed children.

It is quite possible to overdo the cow's-milk-orange juice idea to the injury of a child's general health which, it is not to be forgotten, is also one of the essentials to good teeth. It is very easy to overload a child's stomach with liquids. Cow's milk was not intended for a human diet. The excess of even a reasonable amount of cow's milk in lime salts beyond a child's needs embarrasses the excretory organs in getting rid of the superfluous lime. To make matters still worse it is customary to feed the child spinach with the idea that it will counteract the tendency of milk-fed children to become anæmic. As a consequence the oxalic acid in the spinach combines with the surplus lime and fills up the bowels and kidneys with sharp, scratchy oxalate of lime crystals.

Then, too, cow's milk has an alkaline reaction. Human milk is acid. An excessive amount of alkaline material put into the human stomach, whether of a child or adult, tends to alkalinize the contents of the upper digestive tract and by thus overcoming the natural protection of the acid secretions renders the person more liable to intestinal infections in spite of the pasteurization of the milk.

So, also, the orange juice idea may be overdone. The ability of orange juice to "fix" lime is a matter of quality rather than of quantity. A comparatively small amount will suffice for the purpose. However salutary orange juice may be, to add a pint to one's daily

diet, as the writer recently saw recommended, it would probably not operate in the long run to the benefit of anybody's digestion — and malassimilation is not good for the teeth.

Besides good general health and a diet which supplies the constituent elements of teeth there is still something further needed for the development or preservation of sound teeth. They must be used. A limb which is not used withers. A child's temporary teeth were intended to be used. They cannot be maintained in a healthy condition nor can a child develop good permanent teeth on a diet of milk and mush. A human being is not built right to digest either cracked corn or grass, nor was the young human animal intended to live on the lacteal secretions. He was biologically designed to eat the whole cow and expected by nature to start doing so as soon as he is equipped with teeth to bite and to chew.

It is the blood which brings nutrition material to all the organs and removes the waste.

The heart alone cannot be depended upon for the proper circulation of the blood. Movements of the voluntary muscles take part in maintaining a circulation of blood and lymph necessary for proper bodily nutrition and health. This is why exercise is important to health. The circulation of the venous blood and of the lymph in the larger lymph vessels is dependent upon the rythmical movement of the diaphragm and the process of respiration. The proper circulation of the blood through the dental recesses which surmount the jaw bones and surround the teeth is dependent upon intermittent pressure which is supplied by biting and chewing.

Good teeth and their maintenance are dependent upon good circulation of blood in the jaws and gums. If a child is not given work for its temporary teeth he will not develop satisfactory permanent teeth whatever its diet. If an adult does not use his teeth they will not remain in a healthy condition.

A good circulation of blood through jaws and gums is not merely needed for the construction and nutrition of their teeth. It is required for their preservation as well.

Two factors are always necessary for the development of an infection or disease: An infection organism capable of producing a disease and a bodily condition which enables the organism to set up its pathogenic action. In so far as decay of teeth or diseases of the gums may be due to a local vulnerability, to infective organism, such liability to infection may be brought about by lack of use of the teeth with consequent poor circulation of blood in the gums as well as by a deficient diet or by a condition of the general health which prevents the proper assimilation of a theoretically adequate diet.

SUMMER VACATION.

"Ten Hints for Summer Vacationists," to help them to avoid the most common health risks, were issued by Health Commissioner Wynne. In his explanatory comment the Commissioner especially stressed the danger from typhoid fever. He also urged recognition of the idea that vacations are intended as a time to build up health against the stress and strain of the rest of the year.

The ten hints follow:
Select your summer hotel and boarding house with care.
See that your child's camp is approved by health authorities.
Do not drink from springs or brooks along the route.
If you cannot get pasteurized milk — boil what you use.
Take all outdoor exercise possible — but in moderation.
Eat three full meals a day — nothing in between.
Green vegetables, fruit and eggs make best diet.
Do not attempt long walks during heat of day.
Do not attempt vigorous exercise when sun is high.
Typhoid inoculation before trip is advisable.

"Last year," the Commissioner said in his further comment, "we had a sad experience with a number of New York children who were stricken with typhoid in an out-of-town camp in which raw milk had been used. Several of the victims died. All camps established in New York City are under the supervision of the Department of Health and are absolutely safe, while camps outside the city, unless they can prove a pure water supply, pasteurized milk and perfect sanitary conditions, and unless they are under the supervision of a competent health inspector, are dangerous. So it is with summer hotels and boarding houses. Be certain the food and water supply are healthful before booking reservations.

"Wise parents send their children only to camps that have the approval of the state and local health officials, and this is the only safe plan to pursue. A little forethought and investigation will more than be repaid in the comfort and health of your child.

"Anyone planning to pass his vacation in camping or motoring should pay particular heed to this warning. Such persons are more liable to typhoid than those stopping at summer boarding houses or summer hotels. Because of the investment which they have at stake the majority of the latter strive to give close attention to the milk, food and water, but the camper and the hiker frequently seek remote places where there is either a spring or brook. Either of the latter may have crystal clear water, yet may be filled with typhoid bacilli."— *New York Times, May 26, 1930.*

* Note: The above may also be applied to Boston and vicinity..

THE GROWING INTEREST IN HEALTH.

The appearance in magazines and newspapers of articles respecting health seems to show that certain phases of medicine have emerged from the former status of uninteresting topics for common publicity and now take high rank as interesting news material. This change in editorial sentiment is a tribute to the medical profession as well as to the laity because physicians have been trying for many years to have correct facts and opinions made available for application by intelligent people, and the evident interest of the nonmedical group seems to demonstrate much more understanding of the tremendous importance of the healthy body as a fundamental requisite of efficiency in one's life work.

The cooperation of editors was shown in the response to the invitation of Dr. Ray Lyman Wilbur to meet at the Department of the Interior, May 16, 1930. They then proceeded to organize themselves into an advisory council to assist the White House Conference on Child Health and Protection with the plan to put before the people of the country scientific information on child health in understandable language.

In addressing the meeting, Secretary Wilbur said:

"It is trying to wedge into American civilization the great opportunities that modern knowledge has expressed through the physician, the teacher, the public health worker — the great advantage that all this has to offer to civilization. I think the public is ready for it and I think it is largely a responsibility of ours to see that our information gets the farthest possible spread. We must do what we can to help the children, not only in this country but in many countries, to get from the accumulated information that has been gathered the real advantages. Unless we do this we are not successful."

This country is particularly fortunate in having the service of Doctor Wilbur who is demonstrating his well-recognized qualities of leadership and organization which will bring about the dissemination of information for the use of those who are responsible for the well-being of children.

The results of the work of the committee will be available at the earliest possible time.

This movement and all other well conducted publicity plans will operate to build closer relations between the medical profession and the public to the end that quackery will eventually be the resource of those unfortunate people who are, as a class, the victims of comparatively low grade intelligence.

New England Journal of Medicine, May 29, 1930.

NEW REGULATIONS RELATIVE TO THE SALE OF TETRAETHYL LEAD GASOLENE.

The Surgeon-General of the United States Public Health Service, after obtaining the advice of the members of an advisory committee, composed of Dr. William H. Howell, chairman; Dr. A. J. Chesley, Dr. David L. Edsall, Dr. Reid Hunt, Dr. Walter S. Leathers, Prof. Julius Steiglitz and Prof. Charles E. A. Winslow, has proposed to the various state health authorities the following set of regulations relative to the distribution of ethyl gasolene:

1. Each filling station shall keep prominently displayed on each pump which delivers motor fuel containing tetraethyl lead, a sign or signs reading as follows, in prominent heavy gothic capital letters, black on white background:

CONTAINS
LEAD
(Tetraethyl) and
Is to be Used as
Motor fuel only
Not for cleaning
or any other use
Avoid Spilling

The printed matter on the sign, not counting the enclosing border, shall measure approximately $6\frac{1}{2}$ inches wide by $7\frac{1}{2}$ inches high. The first line (Contains) shall be in letters $\frac{3}{4}$ of an inch high, the second (Lead) in letters 1 inch high, and the remainder in letters $\frac{7}{16}$ of an inch high. All words of the sign shall be kept clear and prominent, the entire sign to be within the limits of 5 feet and 4 feet above the ground level. Such a sign shall be maintained on the face of each side of the pump at which delivery could be made.

2. Suitable leaflets shall be available for distribution on request at all filling stations where ethyl gasolene is sold. These leaflets shall describe the possible dangers and precautions to be taken in the use of ethyl gasolene.

3. Containers of ethyl gasolene sold to consumers shall bear the following label in such a position as to be plainly legible when the container is opened:

CONTAINS
LEAD
(Tetraethyl) and
Is to be Used as
Motor fuel only
Not for cleaning
or any other use
Avoid Spilling

Though the term "ethyl gasolene" is used in paragraphs 2 and 3 of the above proposed regulations, as well as in Series II, which concerns the mixing of ethyl fluid, it is understood that with the use of these new signs gasolene distributors will be relieved from the necessity of using the word "ethyl" in connection with their product, since in the term "ethyl gasolene" as used in these regulations are included all other motor fuels containing tetraethyl lead. On account of the position specified, a considerable interval of time and in some cases structural alterations in the pumps will be required before the new signs can be expected to be installed at all filling stations which are already equipped with old signs. It is believed that these new signs, expressing in as few and as quickly read words as possible the elementary precautions considered advisable, having a uniform lettering, and placed so that they may easily be read from the driver's seat of an automobile, will be more satisfactory than any specification as to the name of the gasolene, and will form an adequate protection to the motorist against this particular hazard.
—*Reprint No. 1260 from the Public Health Reports, November 30, 1928.*

THE PUBLIC HEALTH INSTITUTE.

The Fourth Public Health Institute for health officers and other public health workers will be held at the Massachusetts Institute of Technology, Cambridge, Mass., from June 23 to July 12, 1930.

This course for the instruction of persons interested officially or otherwise in the promotion of public health is conducted and arranged by the Department of Biology of the Massachusetts Institute of Technology, with the cooperation of the Massachusetts Department of Public Health, the Massachusetts Association of Boards of Health, the Metropolitan Life Insurance Company, and of other organizations engaged in public health work.

The course offers an excellent opportunity for local health officers and others to bring themselves up-to-date in progress in health promotion information and methods and the increase in attendance each year from all parts of the country shows a growing appreciation of the course at the institute for the purpose.

Detailed information is obtainable from Prof. S. C. Prescott, Department of Biology, Massachusetts Institute of Technology, Cambridge, Mass.

If your suspicion is aroused concerning a possible disease it is your first duty to summon your physician, not only to protect yourself but also to safeguard the public at large.

SUMMER CARE OF BABIES.

In summer, in most parts of the United States, the problem is to keep the nursery cool, at least during the day. In the hottest weather the lower part of the house is usually cooler than nearer the roof, and it may be wise to move the baby about in order to secure a place for him to take his daytime naps in comfort. Although the evening may be very hot, the temperature usually falls before morning, and in some parts of the country summer nights get quite cold. In all these varying conditions the mother must use her common sense and her ingenuity to make the baby as comfortable as possible.

He should wear only the band and diaper during the hot hours of the day, and light clothing at night, if the heat continues; and his body may be cooled with a sponge bath upon going to bed.

The temperature of the baby's room should be regulated by a thermometer, hung about three feet from the floor. No active adult can guess accurately the temperature prevailing about the baby's body. A thermometer is an inexpensive necessity in every well-regulated nursery.

United States Department of Labor, Children's Bureau.

ATTENTION, VACATIONISTS.

TYPHOID FEVER HAS OFTEN BEEN TERMED A "VACATION DISEASE."

Many cases and deaths occur in the summer and autumn after people have retured from vacations.

They can be prevented by simple measures

CLEANLINESS AND ANTITYPHOID INOCULATION ARE THE WEAPONS.

Do not bring typhoid back with you into a city that has the lowest death rate of the big cities in the country.

Antityphoid inoculation may be given by your physician or free of expense by the Health Department.

This is a safeguard for yourself, the community and the entire city.

PROTECT YOURSELF BEFORE YOU START ON WEEK-END TRIPS OR ON REGULAR VACATIONS.

HOW MEASLES IS CONTAGIOUS.

Measles is caused by something which is to be found in the blood, in the secretions from the mouth and nose and possibly in the tears, of a person sick with the disease. This "something" is sprayed out into the air when the sick person coughs, sneezes or even cries or talks. It is spread on everything soiled by secretions from the mouth or nose of the patients, eating or drinking utensils, handkerchiefs, clothing, bedding or the patient's fingers. The minutest amount of such secretions, if it finds a way directly or indirectly into the mouth or nose of a susceptible person, is sufficient to cause him to develop measles, and this is the way the disease is spread.

How to Avoid Measles.

After a person has been infected with measles he does not show any symptoms of sickness for nine or ten days or even longer. He then begins to have a slight running of the nose and eyes and possibly a slight cough or in other words the symptoms of a mild cold. These symptoms become marked and three or four days later or about fourteen days or more after he was infected he breaks out with the characteristic rash of measles.

It is during these three or four days before the measles rash appears and while the patient is often supposed to have "only a cold" that the secretions from his mouth and nose are most virulent and he is most dangerous to others. This is the chief reason why measles has the reputation of being so contagious. Nothing is usually done to protect other persons until the measles rash begins to appear. As a matter of fact after the rash appears the secretions usually lose very rapidly their power to transmit the disease.

To protect the younger children of the family against measles it is therefore necessary to protect them against other children who may be in the early stages of measles but who seem to have only a mild cold.

HABITS, TRAINING, AND DISCIPLINE.

Habits are the result of repeated actions. The wise mother strives to start the baby right. A properly trained baby is not allowed to learn bad habits which must be unlearned later at great cost of time and patience.

If individuals would co-operate more closely with their local health officials, by securing compliance with their special regulations, less disease and misery would exist.

THE NURSERY.

A bright, sunny room should be chosen for the nursery, for a child needs sunshine for health and growth just as a plant does, and, like a plant, will droop and pine without it. Windows opening to the south, southeast, or southwest will admit the sun for many hours of the day, and a room so lighted will, in the northern parts of the country, be most desirable. In the south, it may be better to select a more shaded room, especially for the summer months.

Whenever possible, the room should be given up to the exclusive use of the baby in order that temperature, light, and ventilation may be easily adapted to his special needs and everything can be so arranged as best to serve his welfare and the convenience of the mother. It is very hard to give the baby the quiet and privacy he ought to have in a room that must be occupied also by other members of the family.— *United States Department of Labor, Children's Bureau.*

SUMMARY OF WORK, APRIL, 1930.

ADMINISTRATION DIVISION.

Prosecutions	3	Personnel:	
Proposals accepted	5	Health Commissioner reappointed	1
Legal notices	238	Permanent appointments	5
Settlements:		Provisional appointments terminated	3
Total cases	149	Trip authorized	1
Notices	99	Temporary appointment extended	1
Bills	50	Hearings	3
		Amendment to milk regulations	1
		Leave of absence	1
		Budget increases	122

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	1,153	Ice cream manufacturers	66
Denatured alcohol	130	Grease	2
Hen licenses approved	2	Manicure	1
Lying-In Hospital approved	1	Dump approved	1
Manicure-massages granted	130	Milk	2,358
Ice cream dealers approved	509	Pedlers	177
Ice cream dealer disapproved	1	Undertakers' licenses renewed	166

MEDICAL DIVISION.

Reported cases	4,478	Visits:	
Nonresidents	106	By V. D. investigator	313
Deaths investigated	29	By medical inspectors to cases of communicable disease	798

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	57	
Positive for release	32	
Negative for diagnosis	706	
Negative for release	124	
No growth cultures	36	
	—	957
DARK FIELD:		
Positive	1	
Negative	1	
	–	2
GONORRHEAL:		
Positive		0
OPHTHALMIA:		
Negative		50
GONORRHEA:		
Positive	130	
Negative	823	
	—	953
GENITO URINARY TUBERCULOSIS:		
Positive	2	
Negative	28	
	—	30
MALARIA:		
Negative		3
MISCELLANEOUS:		
Positive	6	
Negative	26	
Unclassified	214	
	—	246
TUBERCULOSIS:		
Positive	45	
Negative	341	
Unsatisfactory	8	
	—	394
TYPHOID:		
Positive	1	
Negative	32	
Unsatisfactory	2	
	—	35
SYPHILIS:		
Positive	125	
Negative	796	
Unsatisfactory	18	
Doubtful	21	
	—	960
Bacteriological milk examinations		786
Bacteriological ice cream examinations		76
Total		4,492
Swimming pools examined		64
Extra waters examined		5

Cultures for virulence, 1; Smears for Vincent's angina, 9; Paratyphoids, 2; Cultures for meningicocci, 8; Urine for eberthella typhi, 6; Faeces for eberthella typhi, 6; urines for analysis, 214.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during May, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H	12.34	3.70	10,000
Antetomasso, Peter	12.81	3.99	20,000
Bancroft, Hugh *	13.76	4.60	40,000
Brandley, T. J. & P. J	12.56	3.87	32,000
Buxton, William E	13.45	4.30	700
Casey, James D	13.17	4.23	10,000
Cashin, J. F., & Co	12.40	3.91	10,000
Chapin, George L	12.83	4.15	8,000
Clark, Levi	12.34	3.86	13,000
Corkery, John J	12.46	3.89	22,000
Cosgrove, Martin S	13.04	4.32	17,000
Daley, John	12.08	3.72	5,000
Dean, Louis W*	13.15	4.15	750
Deerfoot Farms Company	12.83	4.09	16,000
Denehy, Timothy	12.60	3.80	10,000
Driscoll, William B., & Co	12.41	3.86	14,000
Elm Spring Farm Company	12.38	3.74	18,000
Malcolm D. Ferguson	12.63	3.98	24,000
Garfield, Mason	14.72	5.55	7,000
Garvin, Charles	12.07	3.60	18,000
Giroux, J. E. & H. J	12.39	3.75	17,000
Griffin, Joseph L	12.76	3.98	13,000
Gushee, Chester W	12.55	3.82	18,000

* All milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Hampden Creamery Company	12.43	3.50	49,000
Herlihy Brothers, Inc	12.44	3.82	25,000
Hickey, J. B	12.29	3.70	10,000
Holden, John E	12.26	3.81	12,000
Hood, H. P. & Sons, Inc	12.40	3.84	20,000
Hutchinson, Frank T	12.58	4.14	13,000
Jones, William T., Company	12.62	3.98	13,000
Kendall Brothers	12.32	3.66	14,000
Kingston Brothers	12.47	3.75	23,000
Knapp, George J	12.61	3.75	42,000
Lang Brothers	12.41	3.80	27,000
Larsson, Charles	12.37	3.63	18,000
Lyndonville Creamery Association	12.75	4.03	35,000
Lyons, William A	12.63	3.75	29,000
Manning, Harriet	12.07	3.67	17,000
McAdams, J. F. & Brothers, Inc	12.75	4.04	11,000
McKernan, John	12.54	3.73	12,000
Munchback, Albert W	12.47	3.71	28,000
New England Creamery Products Company *	12.71	4.03	34,000
Prescott, J. B., Company	12.38	3.90	25,000
Robinson, A. J	13.05	3.95	18,000
Schuster, Adam	12.51	3.91	24,000
Seven Oak Dairy Company	12.46	3.82	17,000
Shick, Jacob	12.27	3.60	17,000
Somerset Farms Creamery Company	12.89	4.10	9,000
Sterling Farm Milk Company	12.38	3.75	14,000
Stone, H. L	12.29	3.80	17,000
Stuart, W. E., Company	12.51	3.74	25,000
Turner Centre System	12.33	3.80	23,000
United Farmers Co-operative Creamery Association, Inc	12.59	4.00	15,000
Walker-Gordon Laboratory Company *†	12.16	3.70	50
Weiler, E., & Sons	12.83	4.00	25,000
Westwood Farms Milk Company	12.46	3.82	44,000
White Brothers	12.66	3.95	11,000
Whiting Milk Companies	12.32	3.70	24,000
Whittemore, W. D	12.75	3.92	22,000
Williams, Edward C	12.44	3.87	32,000
Wiswall, Granville A	12.29	3.70	18,000
Woodland, Charles L	12.32	3.78	25,000

* All milk from tuberculin tested cows.

† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic and Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.41	3.85	18,000
Brown, M., & Sons.....	Whiting Milk Companies...	12.37	3.73	14,000
The Cloverdale Company.....	Turner Centre System.....	12.25	3.87	16,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.46	3.86	26,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Association, Inc.	12.79	4.09	15,000
Morgan Brothers Company *...	New England Creamery Products Company.	12.67	4.08	23,000
M. Winer Company.....	M. Winer Company.....	12.78	4.12	17,000

* All milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacteria content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	14.18	5.00	14,000
Cosgrove, Martin S.....	13.58	4.60	16,000
Dean, Louis W.*.....	13.37	4.30	4,500
Elm Spring Farm Company.....	12.99	4.22	15,000
Griffin, Joseph L.....	13.82	4.90	9,000
Gushee, Chester W.....	12.37	4.00	5,000
Herlihy Brothers, Inc.....	12.96	4.30	17,000
Hood, H. P. & Sons, Inc.*.....	12.68	4.17	7,000
Jones, William T., Company.....	13.02	4.50	6,000
Lyndonville Creamery Association, Inc.....	13.62	4.65	21,000
McAdams, J. F. & Brothers, Inc.....	12.78	4.33	11,000
Robinson, A. J.....	13.56	4.50	12,000
Seven Oaks Dairy Company.....	13.24	4.50	3,500
Sterling Farms Milk Company.....	12.56	4.00	11,000
Turner Centre System.....	12.89	4.28	13,000
Weiler, E., & Son.....	13.08	4.19	22,000
White Brothers.....	13.04	4.50	9,000
Whiting Milk Companies.....	12.64	4.18	8,000

* All milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	13.03	4.55	2,900
Hood, H. P., & Sons, Inc.*	Own	13.28	4.35	1,600
New England Creamery Products Company.	Bellows Stock Farm	12.25	3.75	4,100
Turner Centre System	Alta Crest	12.88	4.00	900
Walker-Gordon Laboratory Company.*	Own	12.28	3.80	1,600
Whiting Milk Companies	Hampshire Hills	13.52	4.40	2,800

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	12.01	3.50	100
Hood, H. P., & Sons, Inc.*	Own	13.30	4.20	150

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	450
Milk from stores	880
Brought by citizens	1
Vinegar	69
Water	1
Ginger extract	1
Sausage	1
Maple syrup	1
Miscellaneous	6
Samples referred to Bacteriological Laboratory for examination:	
Milk	786
Ice cream	76
Court cases	9
Fines	$130

DAIRY DIVISION.

Total services	1,467	Total cattle inspected	10,628
Dairies inspected	772	Inspections of milk plants and licensed dealers	258
Scoring above 50 *	617	Bacteriological examinations	50
Scoring below	155	Country creamery inspection	14
With milk rooms	690	Sediment tests	346
Without milk rooms	82		
Inactive	26		

* Passable mark.

FOOD INSPECTION DIVISION.

May, 1930.

District inspections	4,085
Reinspections	521
Market inspections	2,825
Terminal inspections	941
Vehicle inspections *	6,784
Stand inspections	2,090
Complaints	44
Notices to abate	235
Condemnations	104,253 pounds
Samples taken	9
Pedler Service:	
Numbers assigned	277
Licenses certified	177
Vehicles approved	773
Licenses to remove bones	1

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	2,829	Parts condemned	711
Calves inspected	5,492	Animals condemned	89
Swine inspected	3,280	Total of meat condemnations (pounds)	13,986
Sheep inspected	357		

SANITARY DIVISION.

Original inspections	3,636	Complaints investigated	871
Causes for action found	2,514	Nuisances abated	2,577
Reinspections	8,914	Routine inspections	2,786
Legal notices served	276		

TYPHOID VACCINATION.

Typhoid fever is a vacation disease. Have you arranged with your physician to give you typhoid fever vaccination before starting on your vacation? Remember it takes two or three weeks for the vaccination to give protection.

Typhoid fever is a long, disabling disease. The mortality is not far from 10 per cent. The typhoid vaccine is a sterilized product containing no live organisms, or virus, requires no care of the place where it is injected with a hypodermic syringe and if it produces any disagreeable effects at all they pass away in a few hours. An immediate appointment with your physician for typhoid vaccination may save you lots of regrets.

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	17	130	145	275	32	30	62
East Boston	13	76	82	158	12	10	22
North End	12	21	51	72	2	5	7
West End	12	48	57	105	6	2	8
South Boston	12	51	51	102	10	8	18
Boston Dispensary	8	17	25	42	7	4	11
Brighton	8	17	5	22	4	0	4
Charlestown	9	25	53	78	4	11	15
Codman Square	12	69	67	136	10	10	20
Hyde Park	9	39	30	69	6	7	13
Roxbury	4	39	47	86	6	12	18
Arcadia Street	4	18	13	31	3	1	4
Totals	120	550	626	1,176	102	100	202

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	49	20	96	121
East Boston	12	10	—	33
North End	3	—	—	25
West End	2	6	—	—
South Boston	16	11	69	66
Boston Dispensary	4	—	—	—
Brighton	2	3	—	—
Charlestown	14	4	—	28
Codman Square	12	9	—	—
Hyde Park	14	3	—	—
Roxbury	16	5	—	32
Arcadia Street	14	2	—	—
Totals	158	73	165	305

HEALTH UNIT SOLARIA.

	Number of Children Examined.	Number of Clinics Visited.
South Boston	103	5
East Boston	149	5
North End	91	4
Charlestown	109	4
Roxbury	120	4
Totals	572	22

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING MAY, 1930.

Classification.	Number.	Percentage.
After death	8	13.79
Seven days or less	8	13.79
Eight to fourteen days, inclusive	1	1.72
Fifteen to twenty-one days, inclusive	2	3.45
Twenty-two to thirty-one days, inclusive	2	3.45
Within First Month. (Total)	21	36.20
Within second month	4	6.90
Within third month	3	5.17
Within fourth month	3	5.17
Within fifth month	5	8.62
Within sixth month	3	5.17
Within seventh month	—	—
Within eighth month	1	1.72
Within ninth month	—	—
Within tenth month	—	—
Within eleventh month	—	—
Within twelfth month	1	1.72
Within First Year Preceding Death. (Total)	41	70.67
Within second year	1	1.72
Within third year	2	3.45
More than three years	14	24.14
Grand totals	58	99.98

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF MAY, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	36	22	35	18
North Reading State Sanatorium	4	2	2	3
Lakeville State Sanatorium	1	1	3	3
Rutland State Sanatorium	1	1	4	2
Westfield State Sanatorium	—	1	—	—
Tewksbury	3	2	—	—
Totals	45	29	44	26

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	—	5	—	4
Plymouth County Sanatorium	—	—	—	1
Channing Home	—	—	—	—
United States Veterans' Hospital	15	—	12	—
Doctor Crane's Sanatorium	—	3	1	—
Totals	15	8	13	5

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, May, 1930.

Inspections	199
Physical examinations	486
Schick tests	33
Toxin-antitoxin	455
Toxoids	5
Vaccinations	714
Vaccination certificates	198
Antityphoid injections	27
Day nursery visits	12
Parochial school visits	4
Conferences	7

Report of Child Health Conferences, May, 1930.

Station.	Number of Babies.	Number of Preschool (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	188	50	238	26	1	27	4	60
31 Lincoln street, Brighton	85	24	109	11	5	16	5	22
Charlestown Municipal Building	314	40	354	22	1	23	8	44
Codman Square Library	564	137	701	78	2	80	8	88
Columbia Road Municipal Building	286	39	325	37	1	38	7	46
1 Arcadia street, Dorchester	289	18	307	32	4	36	9	34
East Boston Health Unit	291	28	319	68	9	77	8	40
Hyde Park Municipal Building	217	43	260	29	—	29	9	29
Curtis Hall, Jamaica Plain	180	15	195	31	2	33	4	49
41 North Margin street	245	129	374	53	3	56	9	41
Roslindale Municipal Building	145	30	175	22	2	24	4	32
Children's Hospital	134	18	152	20	1	21	4	38
1049 Columbus avenue	334	42	376	43	1	44	9	42
Roxbury Health Unit	573	38	611	96	8	104	13	47
133 Dorchester street, South Boston	288	72	360	58	14	72	9	40
Shawmut Avenue Municipal Building,	—	—	—	—	—	—	—	—
57 East Concord street	323	17	340	49	1	50	9	38
122 Tyler street	99	14	113	9	—	9	4	28
17 Blossom street	333	51	384	40	—	40	9	43
Totals	4,888	805	5,693	724	55	779	132	42

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, MAY, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	16	12	7	35	17
31 Lincoln street, Brighton	12	12	7	35	17
Charlestown Municipal Building	38	29	24	91	30
Codman Square Library	29	24	22	75	342
Columbia Road Municipal Building	2	—	2	4	55
1 Arcadia street, Dorchester	9	11	2	22	38
East Boston Health Unit	17	26	13	56	80
Hyde Park Municipal Building	1	6	9	16	41
Curtis Hall, Jamaica Plain	6	6	1	13	9
41 North Margin street	—	—	—	—	—
Roslindale Municipal Building	7	6	4	17	29
Children's Hospital	6	5	5	16	10
1049 Columbus avenue	13	10	7	30	53
Roxbury Health Unit	21	28	19	68	194
133 Dorchester street, South Boston	—	—	—	—	42
Shawmut Avenue Municipal Building	—	—	—	—	—
57 East Concord street	2	4	3	9	13
122 Tyler street	4	4	2	10	14
17 Blossom street	2	2	—	4	19
Totals	189	185	127	501	1,013

DENTAL ACTIVITIES AT HEALTH UNITS, MAY, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
Number of cases seen	956	952	928	1,122	700	969	1,029	6,656
Number of treatments:								
By dentists	2,140	1,743	1,422	1,401	976	1,517	1,473	10,672
By hygienists	245	124	229	155	4	2	216	975

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, MAY, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
BOSTON DISPENSARY:								
Calls for district physician	43	.....	73	134	.....	.....	40	290
BOSTON LYING-IN HOSPITAL:								
Number of prenatal clinics	5	5	4	5	5	4	.....	28
Attendance	25	98	64	94	41	17	.....	329
New cases	3	29	9	14	11	.....	.....	66
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,916	3,405	1,913	2,886	2,982	2,970	2,045	18,117
Cases referred	202	.....	86	.....	.....	320	141	749
Diseases reported	12	.....	.....	97	.....	.....	29	138
MOTHERS' CLUB (CHARLESTOWN):								
Number of meetings	5	5	3	4	4	4	4	29
Attendance	50	11	20	97	62	69	35	344
FAMILY WELFARE SOCIETY:								
Staff meetings	4	5	.....	2	4	.....	.....	15
Attendance	34	49	.....	22	50	.....	.....	155
CHILDREN'S HOSPITAL:								
Infantile clinic	4	4	.....	5	5	4	.....	22
Attendance	32	18	.....	66	47	49	.....	212
New cases	.....	.....	.....	.....	1	.....	.....	1
STATE DEPARTMENT OF MENTAL HYGIENE:								
Habit-forming clinic	.....	.....	.....	.....	.....	.....	4	4
Attendance	.....	.....	.....	.....	.....	.....	40	40
New cases	.....	.....	.....	.....	.....	.....	5	5
AMERICAN RED CROSS:								
Home Nursing Classes	.....	.....	.....	5	.....	.....	.....	5
Attendance	.....	.....	.....	73	.....	.....	.....	73
BOY SCOUTS OF AMERICA:								
Number of meetings	.....	5	.....	.....	.....	.....	.....	73
Attendance	.....	122	.....	.....	.....	31	.....	153
MEDICAL SOCIETY	.....	.....	.....	.....	.....	.....	.....	.....
Attendance	.....	.....	.....	.....	.....	.....	.....	.....
JEWISH MATERNITY CLINIC:								
Attendance	.....	.....	.....	.....	.....	4	.....	4
New cases	.....	.....	.....	.....	.....	7	.....	7
HEALTH DEPARTMENT:								
Refraction Service:								
Number of diagnoses	.....	.....	76	.....	.....	.....	.....	76
Number of glasses recommended	.....	.....	26	.....	.....	.....	.....	26
New cases	.....	.....	23	.....	.....	.....	.....	23
Nose and Throat Service:								
Clinics	1	.....	1	.....	.....	.....	4	6
Attendance	193	.....	17	.....	.....	.....	230	440
Operations recommended	54	.....	6	.....	.....	.....	61	121
Mothers' Club:								
Number of meetings	1	1	1	1	.....	1	.....	5
Attendance	17	19	18	19	.....	9	.....	82

NURSING SERVICE.

REPORT FOR MAY, 1930.

Homes Visited		17,198
Child Hugiene:		
Visits to new cases	1,212	
Visits to old cases	6,954	
		8,166
Included are:		
Wrong addresses	88	
Not seen	680	
Absent visits	768	
Communicable Diseases:		
Visits to new cases	3,347	
Visits to old cases	4,474	
		7,811
Included are:		
Wrong addresses	118	
Not seen	199	
Absent visits	317	
Ophthalmia visits	134	
Tuberculosis:		
Visits to new cases	220	
Visits to old cases	3,373	
		3,593
Included are:		
Wrong addresses	28	
Not seen	332	
Absent visits	360	
Positive cases	1,713	
Contacts	1,137	
Suspects	383	
Miscellaneous Visits:		
Infant death investigations	1	
Maternal death investigations	0	
Patients accompanied to hospital	6	
Visits to day nurseries	68	
Visits to parochial schools	472	
		547
Total number of visits		20,117

	Hrs.	Min.
Hours in station by nurses	3,407	10
Hours at baby and pre-school conferences	1,754	20
Hours at tuberculosis clinics	810	25
Total number of visits	5,971	55

VITAL STATISTICS, MAY, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING MAY, 1930, WITH COMPARATIVE FIGURES FOR MAY, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease	1930.	1929.	Increase or Decrease
All Causes:						
Total deaths	970	968	+2	14.35	14.42	—.07
Nonresidents deducted	795	770	+25	11.76	11.47	+.29
By Age:						
Under one year	113	104	+9	1.67	1.55	+.12
One year to four years, inclusive	58	40	+18	.86	.60	+.26
Sixty years and over	421	402	+19	6.23	5.99	+.24
Infant and Maternal Mortality:						
a. Total registered live births	1,381	1,308	+73	20.43	19.49	+.94
b. Registered stillbirths	30	37	—7	.44	.55	—.11
Stillbirths per 1,000 live births and stillbirths	—	—	—	21.26	27.51	—6.25
c. Deaths of mothers from causes incident to childbirth	10	8	+2	.15	.12	+.03
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	7.09	5.95	+1.14
d. Deaths in first year per 1,000 live births	—	—	—	81 82	79.51	+2.31

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	36	48	—12	53.2	71.5	—18.3
Homicides	—	2	—2	—	3.0	—3.0
Suicides	4	12	—8	5.9	17.9	—12.0
Automobile accidents* (death in Boston)	3	5	—2	4.4	7.4	—3.0
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	12	10	+2	17.7	14.9	+2.8
Broncho-pneumonia	69	44	+25	102.1	65.6	+36.5
Cancer	100	138	—38	147.9	205.6	—57.7
Cirrhosis of the liver	7	8	—1	10.3	11.9	—1.6
Diabetes mellitus	29	19	+10	42.9	28.3	+14.6
Diarrhea and enteritis (under two years)	11	7	+4	16.3	10.4	+5.9
Degenerative Diseases, So Called:						
Arteriosclerosis	26	25	+1	38.5	37.2	+1.3
Cerebral hemorrhage	60	60	—	88.7	89.4	—.7
Heart disease	170	186	—16	251.5	277.1	—25.6
Nephritis, chronic	68	60	+8	100.6	89.4	+11.2

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, MAY, 1930.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis.....Cases..	3	3	—	4.4	4.5	—.1
Deaths.	1	—	+1	1.5	—	+1.5
Cerebrospinal meningitis.....Cases..	15	7	+8	22.2	10.4	+11.8
Deaths.	3	4	—1	4.4	6.0	—1.6
Diphtheria.....Cases..	89	100	—11	131.6	149.0	—17.4
Deaths.	3	9	—6	4.4	13.4	—9.0
Influenza.....Cases..	3	7	—4	4.4	10.4	—6.0
Deaths.	3	4	—1	4.4	6.0	—1.6
Measles.....Cases..	2,328	128	+2,200	3,434.8	190.7	+3,253.1
Deaths.	14	2	+12	20.7	3.0	+17.7
Pneumonia (lobar).....Cases..	156	115	+41	230.8	171.3	+59.5
Deaths.	34	41	—7	50.3	61.1	—10.8
Scarlet fever.....Cases..	295	274	+21	436.4	408.3	+28.1
Deaths.	6	2	+4	8.9	3.0	+5.9
Tuberculosis (pulmonary).....Cases..	159	139	+20	235.2	209.1	+28.1
Deaths.	58	59	—1	85.8	87.9	—2.1
Tuberculosis (other forms).....Cases..	28	44	—16	41.4	65.6	—24.2
Deaths.	5	9	—4	7.4	13.4	—6.0
Typhoid fever.....Cases..	8	7	+1	11.8	10.4	+1.4
Deaths.	1	1	—	1.5	1.5	—
Whooping cough.....Cases..	219	192	+27	324.0	286.1	+37.9
Deaths.	6	—	+6	8.9	—	+8.9

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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AUG 14 B. P. L.

SOME CAUSES OF BLINDNESS.

Blindness may result from an acute inflammation that destroys the transparent tissue composing the front of the eyeball, the window through which we look out on our world. Nature does not restore highly specialized tissues like those capable of transmitting rays of light or which convert them into mental concepts.

Any pathogenic organism which can start an inflammation anywhere in the body is probably likewise capable of producing inflammation about the front of the eyeball or in the lining of the eyelid, whence it may extend to the eyeball. Such organisms include the pneumococci, the diphtheria bacilli, various streptococci, the gonococci and other common causes of bodily infection.

There are also other organisms which apparently have a special proclivity for producing an inflammatory condition about the eyes and, so far as known, nowhere else. An inflammation started by some common organisms, of which the gonococci is one example, is to be regarded as dangerous to the eyesight from the start.

Others, among which the cause of epidemic "pink eye" may be cited, seem to possess slight destructive power, but it is to be remembered that whatever may start an inflammation about the eye, the process almost inevitably becomes a mixed infection by reason of the opportunities for infective bacteria to get into the eye.

It is not an easy matter to infect a normal eye. The eye is designed to protect itself against the infective bacteria which are continually being brought into contact with the eye through the air and in other ways. No organism is capable of setting up a more rapidly destructive inflammation of the eye than the gonococcus, yet sometimes an examination of the eye secretions of persons with gonorrheal infection elsewhere will disclose the presence of gonococci in the eye and doing little if any appreciable harm.

The defenses of the eye against infection are both constitutional and local. As with infections elsewhere the resistance of the eye to infection depends both on the possession of specific immunity to the action of certain infective organisms and to the state of a person's general health. Characteristic infections are likely to follow certain dietary deficiencies. Eye infections are also associated with lowered vitality from any cause. Phlyctenular ulcers suggest an overdose of tubercle bacilli. Sickly children, whatever the cause, have sore eyes. On the other hand, acute infection or accident to the eye is likely to produce a profound constitutional disturbance. A stone bruise of the eyeball, an accident not uncommon among stone cutters, may produce an astonishing change in the physical appearance of a strong, vigorous man in a week.

Local defense of the eye against infection is provided by the tears, the reflex nervous mechanism of the eyelid and an epithelial covering which is rapidly being shed and renewed. Normally, covering of the eyeball and lining of the eyelid are kept sufficiently moistened by the tears, so that infective bacteria which lodge in the undamaged eye are washed away and passed along down the canal into the nose. An unusual sensation, whether in the way of light or heat or cold or contact with a foreign body, brings the reflex nervous mechanism into play, the protection of the lid is quickly thrown over the eyeball and the eye is flushed with a gush of tears. The danger of infection comes when something has happened to disturb the normal local defense. It may be that exposure to dust or other material faster than it can be flushed out with tears has resulted in scratching off the protective epithelial covering at some point. Such damage is also likely to be produced by clumsy efforts to remove a foreign body from the eye. Or injury to the epithelium may be produced by a chemical, as when the nurse permits soapy water to get in the baby's eye. Infection is invited by any condition of the eye which diminishes the normal reflex response to an irritant. An eye whose sensibility is blunted by one infection becomes more vulnerable to some other.

Probably the chief cause of blindness in this country is what

is comprised by the term ophthalmia neonatorum, an infection of the eyes occurring in the process of birth or soon after. The parts of the mother's body with which the child's head comes in contact during birth are often in an unhealthy condition and even if not apparently diseased the parturient canal may harbor bacteria capable of causing an infection in an infant's eye. To prevent eye infections at birth, it has become the general practice of physicians to drop a solution of nitrate of silver, or of some other silver preparation possessing bactericidal powers, into an infant's eyes immediately upon birth. This procedure is imposed upon physicians and midwives as a legal requirement by the laws of some of our states.

In further effort to prevent the blindness caused by eye infections at birth or soon after, various states, including Massachusetts, have laws which require physicians, nurses or attendants to report immediately to the local Board of Health any inflammatory condition in the eyes of a newly born infant and empowering the local health officials to step in and see that the infant is at once provided with appropriate treatment.

The educational and legal measures of recent years have greatly reduced blindness from ophthalmia neonatorum, but have not prevented it,— not even to the extent that might be inferred from statistical reports. The personal experience of our medical inspectors has shown that cases of blindness from ophthalmia neonatorum which do not become a matter of statistical record are still occurring in Boston.

The experience of the Boston Health Department in connection with the duties thus imposed upon it by law with view to the control of ophthalmia neonatorum would also seem to justify mention of the following matters.

The dropping of a silver solution in an infant's eyes does not imply that the mother is suspected to have gonorrhea, or other venereal disease. The procedure has been known to be resented for this reason. Gonococci are not the only bacteria that a mother may harbor which will cause blindness.

While the efficacy of various silver preparations in preventing infection of the eyes has been amply demonstrated, the procedure of dropping such solutions in the eyes of the newly born does not give 100 per cent assurance against the possibility of the development of infection. Furthermore, be it by reason of the strength or character of a solution, its manner of use or other reason, the precautionary measure of putting a bactericidal solution into the eyes of the newly born infant may in itself be the cause of evidence of irritation of the eyes and even of a definite conjunctivitis. It is to be

frankly recognized that an irritating chemical solution which may be effective in preventing infection at birth may produce an irritation of the eyes which may increase susceptibility to infection afterwards.

If an acute inflammation develops in an eye of an infant or of anybody else, treatment should be instituted at once and the kind of treatment should be that which is deemed advisable from the symptoms by a physician with clinical experience with eye infections. No time should be lost in efforts to get a laboratory to identify the infective agent.

If symptoms or circumstances suggest gonorrheal infection, the eyes should be treated as for a gonorrheal infection. If it be not gonorrhea, there is no harm done. There is no specific treatment for a gonorrheal infection. The approved method of treatment is equally efficacious in any severe infection of the eyes. There may be no infective agents that are more rapidly destructive than the gonococcus, but there are others equally capable of destroying eyesight. The delay incident to a laboratory examination cannot excuse failure to institute such treatment as is indicated by clinical symptoms. Waiting for laboratory reports is too often responsible for serious injury to eyesight or blindness.

Most of the cases of inflammatory eye conditions in infants come to the knowledge of the Boston Health Department through nurses and social workers and by reason of the fact that the Massachusetts law requires nurses and attendants as well as physicians to report inflammatory eye conditions in infants. This feature of the law reads as follows:

"If either eye of an infant becomes inflamed, swollen and red, or shows an unnatural discharge within two weeks after birth, the nurse, relative or other attendant having charge of such infant shall report in writing, within six hours thereafter, to the board of health of the town where the infant is, the fact that such inflammation, swelling and redness of the eyes or unnatural discharge exists. On receipt of such report, or of notice of the same symptoms given by a physician, the board of health shall take such immediate action as it may deem necessary, in order that blindness may be prevented."

Most of the cases so reported are trivial affairs.

The experience of the Boston Health Department has shown that there are physicians as well as nurses who are obsessed with the idea that when an infant is found to have inflamed eyes the matter of paramount importance is to get a "smear" into a laboratory. Misapprehension as to the significance of the laboratory report is also common enough to call for further reference to this matter.

When a written report is returned from our laboratory on a

specimen from a case in which the sender suspects gonococci may be present, the laboratory report either states that the result of the examination is negative or is to the effect that there has been found organisms which when stained have the appearance under the microscope of the Neiser organisms, the cause of gonorrhea.

If the report be negative, it does not necessarily mean that the case is not gonorrhea. The smear may have failed to include the causal organisms of the inflammation.

If organisms be found which have the appearance of the Neiser organisms, otherwise known as gonococci, the sender of the specimen will immediately be notified by telephone and told that the result of the examination is "positive." As is to be inferred from the written report which follows, "positive" does not mean that gonococci have been unmistakably identified. There are various common bacteria indistinguishable under the microscope from the gonococci and their differentiation requires more time on the part of the laboratory than is justifiable to take in the interest of a patient who may have a gonorrheal infection of the eyes. It is believed that the laboratory serves its purpose best in such instances by getting a warning to the sender of the specimen as quickly as possible.

While this procedure and the customary reference to the result of laboratory examinations as "positive" are amply justified in the interest of patients it cannot be too strongly emphasized that ordinary routine laboratory examination "smears," from wherever taken, do not establish a diagnosis of gonorrhea, to say nothing of constituting evidence of marital infidelity or of criminal neglect of treatment of a venereal disease or of furnishing justification for breaking up families.

Blindness, or impairment of vision, coming on in adults, apart from that due to accident or associated with general bodily degenerative changes incident to age, is most often due to destructive influences operating directly on the nerve tissue essential to the mental perception of light. The optic nerve runs from its peculiar brain structures through bony canals to where, like a camera film, it spreads out with a rich blood supply, as the choroid and retina layers lining the back of the eyeball. Blindness may result from damage to any part of this specialized nerve tissue. Infective organisms are not necessarily a factor in bringing about such a result. Some poison circulating in the blood vessels on which the nerve tissue is dependent for its proper nutrition may alone suffice. Wood alcohol is but one example of a poison whose absorption and circulation in the blood may so affect nerve tissue as to cause blindness. Continued excessive use of tobacco is likewise capable of impairing eyesight. Incautious exposure to the shorter

wave lengths of light, to what is commonly referred to as ultra-violet rays, may produce a dangerous irritation of the retina. Serious damage to vision may result from exposure to strong sunlight, particularly in persons whose eyes are not normal or whose general health is impaired. The chronic chroiditis to be observed in near-sighted persons, and which may eventually bring about blindness from a detachment of the retina, is to be ascribed to an abnormal condition maintained by a muscular strain in effort to focus images on the retina, rather than to bacterial infection. As in the case of the myopic President Roosevelt, who suddenly lost the sight in one eye following a blow on the head in boxing, the detachment of the retina often becomes complete as the result of some unusual jar to the head.

The impaired vision as the result of retinal damage to be seen in Bright's disease and in some other constitutional diseases, is to be considered as the result of impaired nutrition of blood vessels and nerves rather than an infective affair. Damage and destruction of the light perceiving tissue may occur, however, as a result of infection. A retinal congestion with a local capillary hemorrhage is not an unusual complication of an infected sinus or of diseased tonsils or teeth.

Optic atrophy, so called, has figured prominently as a cause of blindness in adults. Until recently, the discovery of signs of this condition of the optic nerve as revealed by an ophthalmoscopic examination was equivalent to a sentence to hopeless blindness, for its cause was a mystery and attempts to check its progress were evidently serving to no purpose. Recently it has been discovered that this condition is brought about by the presence of an infection in the cranial bones, a sinusitis in proximity to the course of the optic nerve and which may extend through the protecting bony partition to the nerve tissue itself, and that such involvement of the nerve is favored by certain peculiarities in the size and shape to be found in some persons with respect to the orifices and channel through which the optic nerve runs in the sphenoid bone. This discovery has changed the former hopeless character of optic atrophy. Today there is a reasonable prospect that an operative procedure may prove effective in a cleaning up of the infected bone and result at least in an arrestation of the damage to the optic nerve.

Straining to overcome difficulty in seeing clearly, conscious or unconscious, and whatever the reason, whether faulty illumination, refractive errors in the young or the diminishing plasticity of the refracting media of the eye that comes with age, or any other cause, involves the probability of damage to the delicate nerve structures

of the eye and permanent impairment of the capacity of the eye to give us clear mental conceptions of what we would see. Similar consequences may follow chemical poisoning, focal infections or constitutional disease. The presumption that symptoms of unsatisfactory vision call only for skill in providing the right kind of mechanical assistance in the shape of glass lenses outside the eye is too often unjustifiable. The proper prescription for unsatisfactory vision is always more than a mechanical problem. The cause of unsatisfactory vision is very likely to be found in some general or local condition which interferes with the proper functioning of the nerve tissue or of the nervous mechanism through which we make our mental interpretations of the visible universe.

PSITTACOSIS.

The most serious epidemic of psittacosis thus far recorded occurred last winter. The number of cases reported between July and February throughout the world reached nearly four hundred, and undoubtedly many cases occurred that were not reported. The mortality among these patients was about 35 per cent. The countries in which cases are known to have occurred included the United States, England, Germany, France, Austria, Denmark, Switzerland, Netherlands, Czechoslovakia, Argentina, Brazil, Paraguay and the Hawaiian Islands. The reaction of the public to these scattered outbreaks was unusual. Since the epidemiology of psittacosis is now clearly understood, an occasion cannot arise in which the disease is beyond control. The public should be assured, therefore, that a great epidemic would be impossible. In an elaborate review prepared for the League of Nations, Rouvakine shows that psittacosis has appeared in medical reports for at least fifty years. Hymann reviewed the literature up to the recent epidemic and found 164 cases with fifty-four deaths reported, including the outbreak in Paris in 1892 with fifty-one cases and sixteen deaths, a severe outbreak in a little Rhineland town near Cologne in 1909, two cases in Edinburgh in 1924, and one case in the United States in 1928.

All previous outbreaks of psittacosis, as well as the last epidemic, have been connected with the handling of parrots and other similar wild birds. It seems established that the recent outbreak was the result of a large shipment of parrots from Paraguay and Brazil, many of which died on the way to the dealers and many more after having been distributed widely throughout the world. The outbreak coincided with this event and its subsidence with the placing of an embargo on further shipments of parrots. Psittacosis apparently may be transmitted not only by parrots that are evi-

dently ill but also by those that appear to be well and by the cages in which they are kept. It is estimated that more than 40,000 parrots are imported annually into Germany from South America, Africa, Australia, India and the Malay Archipelago and from there shipped all over the world. Hamburg is a great distributing center. Thus, the machinery is in shape to distribute the disease somewhat promptly from its epidemic center in South America to distant lands. The Amazon species of parrot is the only one known to have given rise to an epidemic of psittacosis among human beings.

The recent epidemic took the form of small outbreaks confined to members of a family or others living in the same house. The patients were almost exclusively persons who had been in direct contact with sick parrots. This fact is so striking that some deny the possibility of transmitting psittacosis from man to man. The most important point in making the diagnosis is to trace the patient's contact with a parrot or parrakeet. The attack seems more serious when contracted from a bite or peck by the bird. The point of entry of the virus may be a factor in the seriousness of the disease.—*Excerpts from Journal of the American Medical Association, May 31, 1930.*

SUGGESTIONS FOR THE LUNCH HOUR.

In planning our lunch period, we naturally think first of where we shall eat and then what we shall eat. Good food is just as necessary to life as good air. It is therefore important to eat such food or combinations of food as will help to produce the energy required and also to regulate the various body processes. The luncheon should be eaten in the pleasantest surroundings possible and we should feel certain that the food which we are to eat is clean, properly selected and well cooked. All business irritations and annoyances should be left behind during the lunch hour. Cultivate cheerfulness at this time. Also guard against fatigue. Be sure that the hands are clean before eating. Above all things, do not make a habit of hurrying through the noon-day meal in order to have time for shopping or some other business. Try to relax, if only for the few minutes while you are eating. At lunch time especially it is advisable to include milk in your meal. Also eat plentifully of fresh vegetables and fruits. Pastry and sweets should be eaten sparingly at this meal.

In short, make the luncheon period, as far as possible, a period in which to eat wisely in order to furnish the body with the energy needed for its activities, and also remember to relax from the strain and rush of whatever vocation is pursued.

And then, after lunching, a slow walk is a permissible type of mild exercise. Breathe deeply, think pleasant thoughts, be cheerful with those whom you meet, and return to work happy and thankful for the good health and courage which you possess to "carry on."

BOILS.

Dr. Leonard Williams thinks any man who lances a boil should be shot at sunrise. A man who cuts one out should be boiled in oil. This is the substance of his advice, though not his language, nor is it correct as to details.

A boil lances itself. The ferments produced by the cocci liquefy the tissues around them, forming liquid pus. Given time, they liquefy to the surface and thus open the boil spontaneously. Opening by knife is premature and does harm. The cut goes through uninfected tissue and opens blood and lymph vessels that they may spread the infection. This may not be true if the boil has come to a head and is about to break.

Another cardinal sin in treating boils is to poultice them. The hot, moist mush or meat spreads infection. Secondary boils around the primary fellow is the rule when treatment has been by poulticing.

A third sin, productive of equal or greater harm is squeezing a boil. Squeezing forces the infection into healthy surrounding tissue. It may cause it to get into lymph vessels and blood vessels and to be widely disseminated.

Having bawled out three common practices, Doctor Williams tells how he treats boils. In the first place, he uses just as little local treatment as possible He may apply a protective pad to spare the boil from being rubbed or otherwise injured. He may apply glycerine and ichythyol compress. When the boil has opened he promotes drainage, but without pressure. He believes in the use of vaccines against boils. If he has had any experiences with the boil phage he does not mention it. This phage is supplied by some health departments, and it is for sale in the drug stores that handle biologic products. He says he has had good results with diphtheria antitoxin given for boils, though he does not try to explain.

He advises persons with crops of boils to regulate their diet. To start with a short fast, followed by a period of dieting in which sugars and starches are limited. In his British experience, drinking champagne has been highly productive of boils. It is forbidden. The regular diet should be rich in vitamins.

— *Doctor Evans in the Boston "Herald."*

ICE ECONOMY.

Do not expose ice to the summer air. The colder a piece of ice is when put into the refrigerator, the longer it will last and the colder it will keep food. A piece of ice which has been left lying around until warmed up nearly to the melting point has lost much of its value.

See that your refrigerator is located in the coolest possible place and that its doors close tightly. Arrange for the taking out and putting in of food so that the refrigerator will be opened as infrequently as possible and for as short a time as possible. Ice must absorb heat to melt. It absorbs heat from the surrounding objects and the surrounding air. When ice is allowed to absorb heat from the air about a hot, leaky or open refrigerator, it cannot absorb as much heat from the foodstuffs in the refrigerator, and consequently the ice is wasted and the temperature of the food is not lowered enough to prevent it from spoiling.

Wrap the top of the piece of ice and the side opposite the refrigerator door with paper or an "ice blanket." This tends to conserve ice. The paper acts as a nonconductor of heat and tends to prevent the ice from absorbing heat too rapidly, especially when the refrigerator is opened. Do not overwork this plan, however. It is only by absorbing heat from surrounding foodstuffs, and melting, that ice can keep the temperature of food low enough to check decomposition, and ice must melt with a certain degree of rapidity in order to keep food from spoiling.

Don't put chopped ice or pieces of ice into water or other drinks in hot weather. Very cold drinks or food are not only unhealthful but dangerous. Water, tea and other drinks had best be cooled in bottles placed in the refrigerator. If made with hot water, as in the case of tea, allow them to cool to room temperature before putting into the refrigerator. The use of chopped ice is not only unhealthful and unnecessary, but wasteful; it is wasteful because of the amount of ice so used, and also because of the unnecessary melting of the ice in the refrigerator, resulting from keeping the refrigerator open when chopping off pieces of ice.

"KEEPING FIT."

A physical examination at least once a year and regular visits to the dentist should be included in the health program of those who are anxious to keep in good health. The instructions or routine prescribed as a result of such visits, or examinations, should be carefully followed out.

TUBERCULOSIS IN PORTO RICO.

Porto Rico is much concerned over its tuberculosis problem. Rodriguez Pastor, in 1929, in an article in the Porto Rico "Journal of Public Health and Tropical Medicine," gives the mortality rates of 267 in 1927, 240 in 1926, 235 in 1928 and 222 in 1911, as the highest during the past nineteen years. The lowest mortality rate during this period was 134 in 1914. This was during the period from 1912 to 1916 when the general death rate in the island was low. There has, however, been no tendency for the mortality from tuberculosis in Porto Rico to come down. In 1928 there were 3,607 deaths from tuberculosis reported.

It appears that basically the problem of tuberculosis in Porto Rico is an economic one. The island is faced with a serious problem concerning tuberculosis, although this is but one of the many of the human problems facing Porto Rico. Basically, they are all related in an economic sense and measures instituted for the relief of tuberculosis will no doubt affect favorably many other conditions on the island. Tuberculosis in Porto Rico may almost be regarded as epidemic.— *From an editorial in the Porto Rico "Journal of Public Health and Tropical Medicine," March, 1930.*

SUMMARY OF WORK, JUNE, 1930.

ADMINISTRATION DIVISION.

Prosecutions	3	Personnel:	
Proposals accepted	2	Temporary appointments	11
Legal notices	193	Retirement	1
Settlements:		Leaves of absence	2
Total cases	141	Resignations	2
Notices	109		
Bills	32		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	946	Ice cream dealer disapproved,	1
Denatured alcohol	15	Temporary stable permit	1
Hen licenses approved	76	Garbage	2
Lying-In Hospital approved	1	Grease	6
Manicure-massages granted	947	Dumps approved	2
Ice cream dealers approved	228	Milk	754
Ice cream manufacturers approved	3	Pedlers	169
		Cesspool cleaning	1

MEDICAL DIVISION.

Reported cases	3,078	Vistis:	
Nonresidents	65	By V. D. investigator	342
Deaths investigated	32	By medical inspectors to cases of communicable disease	663

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	38	
Positive for release	11	
Negative for diagnosis	543	
Negative for release	58	
No growth cultures	34	
	—	684
DARK FIELD:		
Positive	2	
Negative	1	
	–	3
GONORRHEAL OPHTHALMIA:		
Positive	4	
Negative	72	
	—	76
GONORRHEAL URETHRITIS:		
Positive	145	
Negative	735	
Unsatisfactory	1	
	—	881
GENITO URINARY TUBERCULOSIS:		
Positive	1	
Negative	17	
Unsatisfactory	1	
	—	19
MALARIA:		
Negative		3
MISCELLANEOUS EXAMINATIONS:		
Positive	5	
Negative	27	
Unclassified	163	
	—	195
TUBERCULOSIS:		
Positive	37	
Negative	285	
Unsatisfactory	3	
	—	325
TYPHOID:		
Positive	1	
Atypical	2	
Negative	27	
	—	30
SYPHILIS:		
Positive	79	
Negative	873	
Unsatisfactory	15	
Doubtful	23	
	—	990
Bacteriological milk examinations		683
Bacteriological ice cream examinations		20
Total		3,909
Swimming pools examined		80
Water from beaches		7
Extra waters examined		5

Culture from abscess for organisms, 1; cultures for Vincent's angina, 10; fluid for organisms, 2; virulence tests, 1; culture from urethra for organisms, 1; paratyphoids, 2; urines for eberthella typhi, 9; feces for eberthella typhi, 9; urines for analysis, 160.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during June, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjuster to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours before pasteurization, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.30	3.80	14,000
Antetomasso, Peter	12.74	4.00	13,000
Brandley, T. J. & P. J.	12.44	3.85	6,000
Buxton, William E.	13.89	4.80	7,000
Casey, James D.	12.39	3.74	29,000
Cashin, J. F., & Co.	12.55	3.96	17,000
Chapin, George L.	13.03	4.20	10,000
Clark, Levi	12.05	3.73	34,000
Corkery, John J.	12.56	3.93	22,000
Cosgrove, Martin S.	12.58	3.72	23,000
Daley, John	12.05	3.65	12,000
Dean, Louis W.*	13.22	4.28	39,000
Deerfoot Farm Company	12.79	4.07	7,000
Denehy, Timothy	12.32	3.60	35,000
Driscoll, William B., Company	12.46	3.79	16,000
Elm Spring Farm Company	12.39	3.71	32,000
Ferguson, Malcolm D.	12.43	3.75	42,000
Garfield, Mason *	14.08	4.83	2,600
Garvin, Charles	12.83	4.30	2,800
Giroux, J. E. & H. J.	12.20	3.68	17,000
Griffin, Joseph L.	12.57	3.77	14,000
Gushee, Chester W.	12.62	3.78	16,000

* Milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Hampden Creamery Company	12.61	3.64	46,000
Hickey, J. B	12.10	3.78	15,000
Herlihy Brothers, Inc	12.29	3.69	32,000
Holden, John E	12.45	3.78	22,000
Hood, H. P., & Sons, Inc	12.48	3.87	12,000
Hutchinson ,Frank T	12.76	4.12	10,000
Jones, William T., Company	12.57	4.10	17,000
Kendall Brothers	12.39	3.61	14,000
Kingston Brothers	12.25	3.57	11,000
Knapp, George J	12.53	3.62	39,000
Lang Brothers	12.44	3.75	11,000
Larsson, Charles	12.72	4.03	47,000
Lyndonville Creamery Association	12.63	3.98	18,000
Lyons, William A	12.24	3.38	11,000
Manning, Harriet	12.01	3.56	33,000
McAdams, J. F., & Brothers, Inc	12.71	4.07	13,000
McKernan, John	12.66	3.80	29,000
New England Creamery Products Company *	12.78	4.09	30,000
Prescott, J. B., Company	12.25	3.80	11,000
Robinson, A. J	13.85	4.85	30,000
Schuster, Adam	12.78	3.90	38,000
Seven Oaks Dairy Company	12.42	3.85	11,000
Shick, Jacob	12.26	3.68	12,000
Somerset Farms Creamery Company	12.96	4.27	10,000
Sterling Farms Milk Company	12.15	3.67	12,000
Stone, H. L	12.18	3.58	11,000
Stuart, W. E., Company	12.49	3.96	27,000
Turner Centre System	12.39	3.82	23,000
United Farmers Co-operative Creamery Association, Inc	12.64	3.96	14,000
Walker-Gordon Laboratory Company *†	12.28	3.85	50
Weiler, E., & Son	12.46	3.74	22,000
Westwood Farms Milk Company	12.21	3.75	20,000
White Brothers	12.68	3.89	12,000
Whiting Milk Companies	12.35	3.78	18,000
Whittemore, Warner D	12.74	3.92	37,000
Williams, Edward C	12.23	3.85	12,000
Wiswall, Granville A	12.15	3.70	11,000
Woodland, Charles L	12.40	3.70	19,000

* Milk from tuberculin tested cows.

† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic and Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.40	3.83	15,000
M. Brown & Son.....	Whiting Milk Companies...	12.31	3.70	21,000
The Cloverdale Company.....	Hood, H. P., & Sons, Inc. and Herlihy Brothers, Inc.	12.29	3.70	31,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.44	3.79	39,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Association, Inc.	12.89	4.13	18,000
Morgan Brothers Company.....	New England Creamery Products Company.*	12.68	3.95	31,000
M. Winer Company.....	M. Winer Company.....	12.59	4.03	23,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.87	4.80	4,000
Cosgrove, Martin S.....	13.70	4.75	17,000
Dean, Louis W.*.....	13.62	4.50	17,000
Elm Spring Farm Company.....	13.15	4.20	11,000
Griffin, Joseph L.....	13.34	4.45	11,000
Gushee, Chester W.....	12.93	4.28	8,000
Herlihy Brothers, Inc.....	12.40	4.00	25,000
Hood, H. P., & Sons, Inc.*.....	12.71	4.20	6,000
Jones, William T., Company.....	13.16	4.42	12,000
Lyndonville Creamery Association.....	12.78	4.30	11,000
McAdams, J. F., & Brothers, Inc.....	12.58	4.10	8,000
Robinson, A. J.....	13.88	4.80	21,000
Seven Oaks Dairy Company.....	12.87	4.20	7,000
Sterling Farms Milk Company.....	12.84	4.10	9,000
Turner Centre System.....	12.60	4.12	8,000
Weiler, E., & Son.....	12.91	4.10	22,000
White Brothers.....	12.99	4.40	13,000
Whiting Milk Companies.....	12.61	4.14	9,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	12.80	4.20	2,800
Hood, H. P., & Sons, Inc.*	Own	12.78	3.95	1,500
Turner Centre System	Alta Crest	12.96	4.00	1,600
Walker-Gordon Laboratory Company.*	Own	12.62	4.00	9,000
Whiting Milk Companies	Hampshire Hills	13.30	4.40	600

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for certified milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Cedar Hill Farm, Inc.	Own	12.48	3.85	150
Hood, H. P., & Sons, Inc.*	Own	13.01	4.20	100

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	385
Milk from stores	720
Brought by citizens	4
Vinegar	62
Water	3
Miscellaneous	1
Samples referred to Bacteriological Laboratory for examination:	
Milk	683
Ice cream	20
Court cases	8
Fines	$90

DAIRY DIVISION.

Total services	1,379	Total cattle inspected	12,537
Dairies inspected	821	Inspections of milk plants and licensed dealers	217
Scoring above 50 *	584	Bacteriological examinations	111
Scoring below	237	Country creamery inspection	17
With milk rooms	650	Sediment tests	196
Without milk rooms	171		
Inactive	17		

* Passable mark.

FOOD INSPECTION DIVISION.

June, 1930.

District inspections	3,063
Reinspections	552
Market inspections	1,348
Terminal inspections	834
Vehicle inspections *	3,938
Stand inspections	1,231
Complaints	50
Notices to abate	191
Condemnations	71,082 pounds
Samples taken	3
Pedler Service:	
Numbers assigned	966
Licenses certified	169
Vehicles approved	896
Licenses to remove bones	6

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	2,501	Parts condemned	555
Calves inspected	3,869	Animals condemned	42
Swine inspected	2,357	Total of meat condemnations (pounds)	11,363
Sheep inspected	226		

SANITARY DIVISION.

Original inspections	2,724	Complaints investigated	749
Causes for action found	2,000	Nuisances abated	1,891
Reinspections	6,464	Routine inspections	2,309
Legal notices served	181		

COST OF MEDICAL CARE.

Seventy dollars per family was the average cost of medical care during a recent six-months' period for over 3,000 workingmen's families selected for study from the insured list of the Metropolitan Life Insurance Company. The total expenditure for these families during this period was $230,907. The expenditures for the larger families averaged less per capita than for the smaller families, and one-fifth of the families expended nearly two-thirds of the total.

— *U. S. Department of Labor, Children's Bureau.*

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	18	128	119	247	28	32	60
East Boston	10	49	77	126	11	11	22
North End	12	23	40	63	7	2	9
West End	12	40	54	94	3	—	3
South Boston	12	69	44	113	9	4	13
Boston Dispensary	7	15	13	28	3	0	3
Brighton	8	15	8	23	4	3	7
Charlestown	7	26	48	74	7	10	17
Codman Square	9	77	64	141	15	4	19
Hyde Park	8	38	36	74	7	8	15
Arcadia Street	4	10	19	29	3	6	9
Roxbury	3	38	38	76	5	4	9
Totals	110	528	560	1,088	102	84	186

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
Arcadia Street	8	3	—	—
South End	37	25	71	95
East Boston	11	7	—	25
North End	9	3	—	25
West End	1	3	—	—
South Boston	7	6	35	73
Boston Dispensary	—	2	—	—
Brighton	2	3	—	—
Charlestown	14	2	—	27
Codman Square	22	6	—	—
Hyde Park	16	5	—	—
Roxbury	10	3	—	37
Totals	137	68	106	282

HEALTH UNIT SOLARIA.

	Number of Children Examined.	Number of Clinics Visited.
Charlestown	95	4
South Boston	96	5
North End	79	3
Roxbury	60	3
East Boston	51	3
Totals	381	18

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING JUNE, 1930.

Classification.	Number.	Percentage.
After death	10	23.23
Seven days or less	7	16.28
Eight to fourteen days, inclusive	5	11.63
Fifteen to twenty-one days, inclusive	2	4.65
Twenty-two to thirty-one days, inclusive	—	—
Within First Month. (Total)	24	55.79
Within second month	3	6.98
Within third month	2	4.65
Within fourth month	—	—
Within fifth month	—	—
Within sixth month	1	2.33
Within seventh month	1	2.33
Within eighth month	—	—
Within ninth month	1	2.33
Within tenth month	1	2.33
Within eleventh month	—	—
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	33	76.74
Within second year	2	4.65
Within third year	—	—
More than three years	8	18.60
Grand totals	43	99.99

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF JUNE, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	22	7	19	11
North Reading State Sanatorium	4	1	—	3
Lakeville State Sanatorium	3	1	1	1
Rutland State Sanatorium	2	3	1	2
Westfield State Sanatorium	—	—	—	—
Tewksbury	1	1	—	—
Totals	32	13	21	17

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	—	1	—	—
Plymouth County Sanatorium	—	—	—	—
Channing Home	—	—	—	—
United States Veterans' Hospital	1	—	7	—
Doctor Crane's Sanatorium	2	1	—	—
Totals	3	2	7	—

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, June, 1930.

Inspections	286
Physical examinations	859
Toxin-antitoxin	402
Toxoid	1
Vaccinations	385
Vaccination certificates	246
Day nurseries visits	2
Parochial school visits	2
Conferences	1

Report of Child Health Conferences, June, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	157	25	182	27	2	29	4	46
31 Lincoln street, Brighton	68	24	92	22	5	27	4	23
Charlestown Municipal Building	331	43	374	42	1	43	9	42
Codman Square Library	525	61	586	62	4	66	9	65
Columbia Road Municipal Building	315	40	355	51	1	52	9	39
1 Arcadia street, Dorchester	301	24	325	31	1	32	7	46
East Boston Health Unit	309	35	344	69	4	73	9	38
Hyde Park Municipal Building	199	24	223	28	4	32	7	32
Curtis Hall, Jamaica Plain	174	21	195	29	—	29	4	49
41 North Margin street	248	86	334	22	—	22	7	48
Roslindale Municipal Building	273	41	314	55	2	57	5	63
Roxbury Health Unit	521	44	635	83	11	104	13	49
Children's Hospital	128	7	135	22	1	33	3	45
1049 Columbus avenue	333	10	343	45	4	49	7	49
133 Dorchester street, South Boston	279	50	229	61	7	68	7	47
Shawmut Avenue Municipal Building,	—	—	—	—	—	—	—	—
57 East Concord street	290	20	310	45	2	47	8	39
122 Tyler street	108	14	122	22	—	22	3	41
17 Blossom street	365	56	421	30	2	32	8	53
Totals	4,994	625	5,619	756	51	807	123	45

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, JUNE, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	4	6	9	19	4
31 Lincoln street, Brighton	1	1	2	4	14
Charlestown Municipal Building	33	26	43	102	38
Codman Square Library	18	24	15	57	74
Columbia Road Municipal Building	4	6	—	10	43
1 Arcadia street, Dorchester	10	7	8	25	34
East Boston Health Unit	5	10	7	22	40
Hyde Park Municipal Building	5	1	—	6	19
Curtis Hall, Jamaica Plain	—	—	5	5	14
41 North Margin street	17	19	12	48	26
Roslindale Municipal Building	8	7	9	24	15
Roxbury Health Unit	14	12	15	41	86
Children's Hospital	2	3	2	7	8
1049 Columbus avenue	15	5	5	25	50
133 Dorchester street, South Boston	—	—	—	—	3
Shawmut Avenue Municipal Building	—	—	—	—	—
57 East Concord street	1	—	—	1	10
122 Tyler street	2	1	2	5	6
17 Blossom street	—	—	—	—	7
Totals	139	128	134	401	491

DENTAL ACTIVITIES AT HEALTH UNITS, JUNE, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
Number of cases seen	672	593	519	771	465	623	933	4,576
Number of treatments:								
By dentists	1,445	1,070	616	1,035	548	1,055	1,499	7,268
By hygienists	174	106	127	85	52	4	184	732

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, JUNE, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
BOSTON DISPENSARY:								
Calls for district physician	51	.....	63	97	.....	.....	43	254
BOSTON LYING-IN HOSPITAL:								
Number of prenatal clinics	4	5	3	4	4	5	.....	25
Attendance	24	80	30	85	43	10	.....	272
New cases	6	17	6	20	10	3	.....	62
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,600	2,557	1,392	2,652	2,553	2,400	1,531	14,685
Cases referred	168	.....	72	.....	.....	229	146	615
Diseases reported	12	.....	.....	56	.....	.....	26	94
MOTHERS' CLUB:								
Number of meetings	4	4	.....	4	4	4	3	23
Attendance	49	24	.....	64	45	52	22	256
FAMILY WELFARE SOCIETY:								
Number of meetings	2	3	.....	.....	1	.....	.....	6
Attendance	9	22	.....	.....	6	.....	.....	37
CHILDREN'S HOSPITAL:								
Infantile clinic	4	4	.....	4	4	5	.....	21
Attendance	31	16	.....	53	35	46	.....	181
New cases	.....	.....	.....	.....	.....	.....	.....	.....
STATE DEPARTMENT OF MENTAL DISEASES:								
Number of habit-forming clinics	.....	.....	.....	.....	.....	.....	4	4
Attendance	.....	.....	.....	.....	.....	.....	34	34
New cases	.....	.....	.....	.....	.....	.....	1	1
BOY SCOUT:								
Number of meetings	.....	.....	.....	.....	.....	1	.....	1
Attendance	.....	.....	.....	.....	.....	8	.....	8
HEALTH DEPARTMENT:								
Refraction Service:								
Number of refractions	.....	.....	44	.....	.....	.....	.....	44
Number of diagnoses	.....	.....	51	.....	.....	.....	.....	51
New glasses recommended	.....	.....	3	.....	.....	.....	.....	3
New cases	.....	.....	14	.....	.....	.....	.....	14
Nose and Throat Service:	.....	.....	.....	.....	.....	.....	.....	.....
Number of clinics	1	.....	2	.....	.....	.....	1	4
Attendance	219	.....	220	.....	.....	.....	61	500
Operations recommended	68	.....	68	.....	.....	.....	18	154
Mothers' Club:								
Number of meetings	.....	.....	1	1	.....	.....	.....	2
Attendance	.....	.....	30	17	.....	.....	.....	47
JEWISH MATERNITY CLINIC:								
Number of clinics	.....	.....	.....	.....	.....	4	.....	4
Attendance	.....	.....	.....	.....	.....	8	.....	8
New cases	.....	.....	.....	.....	.....	3	.....	3

NURSING SERVICE.

REPORT FOR JUNE, 1930.

Homes Visited			14,504
Child Hygiene:			
Visits to new cases		1,233	
Visits to old cases		6,344	
			7,577
Included are:			
Wrong addresses	86		
* Not seen	609		
Absent visits	695		
Communicable Diseases:			
Visits to new cases		2,433	
Visits to old cases		3,046	
			5,479
Included are:			
Wrong addresses	90		
* Not seen	141		
Absent visits	231		
Tuberculosis:			
Visits to new cases		217	
Visits to old cases		3,368	
			3,585
Included are:			
Wrong addresses	21		
* Not seen	272		
Absent visits	293		
Positive case visits	1,755		
Contact case visits	1,177		
Suspect case visits	360		
	3,585		
Miscellaneous Visits:			
Infant death investigations		0	
Maternal death investigations		0	
Patients accompanied to hospital		8	
Visits to day nurseries		27	
Visits to parochial schools		237	
			272
Total number of visits			16,913

	Hrs.	Min.
Hours in station by nurses	3,022	22
Hours at baby and pre-school conferences	1,625	
Hours at tuberculosis clinics	712	
Total number of hours	5,359	22

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

VITAL STATISTICS, JUNE, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING JUNE, 1930, WITH COMPARATIVE FIGURES FOR JUNE, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	791	819	—28	11.70	12.20	—.50
Nonresidents deducted	631	635	—4	9.33	9.46	—.13
By Age:						
Under one year	78	96	—18	1.15	1.43	—.28
One year to four years, inclusive	45	30	+15	.66	.45	+.21
Sixty years and over	329	341	—12	4.87	5.08	—.21
Infant and Maternal Mortality:						
a. Total registered live births	1,281	1,222	+59	18.95	18.21	+.74
b. Registered stillbirths	40	44	—4	.59	.65	—.06
Stillbirths per 1,000 live births and stillbirths	—	—	—	30.28	34.75	—4.47
c. Deaths of mothers from causes incident to childbirth	12	7	+5	.18	.10	+.08
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	9.08	5.53	+3.55
d. Deaths in first year per 1,000 live births	—	—	—	60.89	78.56	—17.67

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	44	64	—20	65.1	95.3	—30.2
Homicides	1	1	—	1.5	1.5	—
Suicides	7	10	—3	10.3	14.9	—4.6
Automobile accidents* (deaths in Boston)	11	18	—7	16.3	26.8	—10.5
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	12	15	—3	17.7	22.3	—4.6
Broncho-pneumonia	30	39	—9	44.4	58.1	—13.7
Cancer	104	85	+19	153.8	126.6	+27.2
Cirrhosis of the liver	7	7	—	10.3	10.4	—.1
Diabetes mellitus	17	17	—	25.1	25.3	—.2
Diarrhea and enteritis (under two years)	6	13	—7	8.9	19.4	10.5
Degenerative Diseases, So Called:						
Arteriosclerosis	31	29	+2	45.8	43.2	+2.6
Cerebral hemorrhage	48	39	+9	70.9	58.1	+12.8
Heart disease	125	146	—21	184.9	217.5	—32.6
Nephritis, chronic	49	51	—2	72.5	76.0	—3.5

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, JUNE, 1930.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 100,000 OF POPULATION.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
REPORTABLE DISEASES:						
Anterior poliomyelitis.....Cases..	—	1	—1	—	1.5	—1.5
Deaths.	—	—	—	—	—	—
Cerebrospinal meningitis.....Cases..	5	8	—3	7.4	11.9	—4.5
Deaths.	5	3	+2	7.4	4.5	+2.9
Diphtheria.....Cases..	74	69	+5	109.5	102.8	+6.7
Deaths.	—	—	—	—	—	—
Influenza.....Cases..	1	2	—1	1.5	3.0	—1.5
Deaths.	1	2	—1	1.5	3.0	—1.5
Measles.....Cases..	1,524	178	+1,346	2,254.4	265.2	+1,989.2
Deaths.	8	—	+8	11.8	—	+11.8
Pneumonia (lobar).....Cases..	96	81	+15	142.0	120.7	+21.3
Deaths.	27	23	+4	39.9	34.3	+5.6
Scarlet fever.....Cases..	171	167	+4	252.9	248.8	+4.1
Deaths.	2	2	—	2.9	3.0	—.1
Tuberculosis (pulmonary).....Cases..	149	124	+25	220.4	184.7	+35.7
Deaths.	43	41	+2	63.6	61.1	+2.5
Tuberculosis (other forms).....Cases..	39	35	+4	57.7	52.1	+5.6
Deaths.	8	5	+3	11.8	7.4	+4.4
Typhoid fever.....Cases..	4	4	—	5.9	5.9	—
Deaths.	1	—	+1	1.5	—	+1.5
Whooping cough.....Cases..	204	153	+51	301.8	228.0	+73.8
Deaths.	4	2	+2	5.9	3.0	+2.9

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

15'37

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

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B. P. L.

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 19. BOSTON, AUGUST, 1930. NO. 8

SOLARIUM PROGRAM OF HEALTH UNITS DIVISION OF TUBERCULOSIS.

The idea of a program for children who are under par, conducted on the roofs of the health units, is not new, but in its present developed form is quite apparently wholly changed.

It was a splendid thought in building the second unit to cover the roof with vita glass, which idea has been carried out on all of the new units, and the original health unit roof was also reconstructed after this manner.

This gave opportunity for an ambitious program with children of this type. The department decided, in 1928, to deal wholly with the preschool child. This child is a contact with a known case in most of the instances, and is under par, the exception being that we have taken some cases of rickets, and the units will always stand ready to serve this group.

In the beginning, the equipment was insufficient, not at all suitable for the program. An appeal was made to the George Robert White Fund, and the response was most generous.

The department is now satisfied that it has a most complete and satisfactory equipment. The floors were remade, cots, tables and chairs suitable to this age group supplied. Cubicles for the storage of toilet articles, dressing rooms, Jungle Jim, an apparatus

for exercise, sand boxes, equipped upper kitchens, etc., were supplied. The department, itself, supplied some cots, sand boxes, play articles, toys, etc., so that now a complete outfit is in the possession of the units.

The program has now been carried on for two years, and during the past year there has been supplied a series of quartz lamps for each unit; the object in obtaining these was to supply the value of sunlight on those days on which nature's supply was cut off.

In the 365 days of the year it has been established that we have 142 days of sunlight, and it was desired to supply ultra violet light on the days which could be termed sky-shine, or dark.

There is an average of about thirty children to each group and this average is sustained throughout the period of ten months, September to July.

The scheme includes cooperative effort with the home of the child subject. This is carried on by conducting a series of mothers' classes, so called. These meet ten times in the year, and at these times the mothers are given the opportunity to observe the program in all its details. The attendance for each class is 100 per cent, which, in itself, shows the interest on the part of the mothers. Continued laxity on the part of the parents is sufficient reason to exclude the child. With so limited a number, the demonstration would not pay should the home interest fail. These mothers receive instructive talks also. These are given by the nutritionist in charge of the dietary, and the physician in charge of the examination of these children.

There are six of these roofs at present in operation, and each one is visited weekly, and the children gone over completely by a physician appointed to this work. This physician is a pediatrician and an expert on childhood tuberculosis.

The children appear at the unit each week morning at 8.30 o'clock, escorted there by the parent, or some responsible person, and leave the unit at 4 o'clock, again being taken home by a parent, or responsible person.

They are fed three times by a planned dietary, and for this purpose, one cook and one assistant have been engaged for each unit. These are under the guidance of the nutritionist.

The daily programs on the roofs are conducted by selected nurses. Prior to the opening of the program in September, a few weeks are occupied in the examination of candidate for the classes.

It is with great satisfaction the department states that all of these children who possessed defects which could be corrected, as teeth and tonsils, have had this work done, and all have been vaccinated and immunized against diphtheria.

It is interesting to note the speed with which these children accord themselves to the plotted daily program. For instance, each child knows when the rest period arrives.

The cots are so constructed as to be handled by the children with little aid. Each child knows the position of his cot, each child knows his own cubicle.

If it be a dark day, and it is time for exposure to the ultra violet lamps, each child puts on his dark glasses, lies on his cot, and is ready for the time clock. He turns when the alarm goes in a few minutes, and on the second alarm, some have fallen asleep.

When meal time arrives, the child gets ready without any ado, and when play time comes, the group seems to dissemble itself into smaller groups with no confusion.

Visitations to the roofs during the day seems not to disturb in any degree, and all of this gives a complete picture of what a well-planned program can accomplish.

The changes observed in these children, physically and mentally, and habitwise, are remarkable, and some of these in the rachitic groups have been startling as to their progress.

There is much more now being developed in this program which will be spoken of at a later date, and there is much more which must come out of this program before it is satisfactory to the department. Expressing this in another way, it will be necessary to have evolved from this program some things which will be of value and available to the whole public dealing with children. This demonstration will always be too limited otherwise to be of great account.

A greater effort was directed to the dietary during the past year than was possible during the year previous, which was the first year of operation. The aim is for greater approach to perfection in this as in the other parts of the program.

The menus, including breakfast, dinner, and afternoon collation, are based on the daily food requirements. Special attention has been given so that each child will receive a proper amount of food with the most desirable distribution of food elements needed for growth.

The special need of certain food elements so necessary to stimulate growth during this age has been constantly kept in mind in planning these menus. The advice of the nutritional authorities has been quite faithfully followed as to the daily requirements of protein, carbohydrates, fat, mineral matter, vitamins A, B, C, D, E for such an age group.

Particular attention has been given to the ratio of calcium and phosphorous in foods, having in mind the great bearing this would have in the correction of nutritive subnormalities as rickets, poor

teeth, and also the irritabilities found in these children. Careful observation of the food actually consumed by each child has been recorded by the nurse present at the meal. The satisfactory progress in weight, height and general bodily development of almost every child admitted to the solarium during the year has indicated that the menu is adequate.

Part of the plan is to avoid monotony in the dietary, and to make it attractive and interesting in order to prevent and overcome any aversion to particular foods. No negligences, as tasteless watery food or careless washing, or over-cooking, or under-cooking, or improper seasoning are tolerated; realizing that these are many times the underlying causes of food dislikes, and have a marked effect on the cost per person. During the past year, the average cost per day per patient is $0.25.

The meal times afford an unusual opportunity for training these children in good food habits. Sitting at the little tables with a nurse, the children have been trained to eat together in the happiest fashion.

The monthly luncheons and nutrition classes for the mothers of these children, which are held at the five units, and which have been previously mentioned, are an attempt at an adjustment of unit and home program, and at the risk of repeating, it can be said again that it is noted that the mothers very much appreciate the program.

Human economy is the important thought back of the entire plan. With this constantly in mind, any material waste in food is closely guarded against.

The greatest individual gain in all the roofs is ten pounds; the average gain, four pounds. Almost all children underweight have reached the normal weight or on a steady gain. No child admitted on the roofs has remained at a stationary weight. Any loss of weight has been accounted for by illness.

DENTAL ACTIVITIES OF THE BOSTON HEALTH DEPARTMENT.

The Boston health units — centers of preventive medicine and health education — have attracted widespread attention since their inception several years ago. From far and near, students of public health have come to study this system of health education, particularly during this tercentenary year when Boston bids welcome to visitors from all over the United States and foreign countries as well.

Each unit has its several divisions, one of which is the dental division which we shall treat here. This division under the direction

of Dr. William Griffin consists of two rooms; one a large operating room equipped with the most modern dental equipment so that the dentists may have everything necessary to give their best to the care of the children's teeth. The finest materials are used. The other room is the children's waiting room which has small tables and chairs for the young patients. Here the school nurse sits with the children waiting for treatment, reads to them and gives instruction.

The dental clinic is indeed a busy place. Every day from nine in the morning until four-thirty in the afternoon and Saturdays until noon a full-time dental personnel consisting of two dentists and a dental hygienist are at the clinic. Children of the first and second grades of the public schools are brought to the unit by the Boston School Department nurses while those of the parochial schools are cared for by the Boston Health Department nurses.

The policy of the Forsyth Dental Infirmary for Children is carried out, attention being given to the care of the primary teeth, because of their important relationship to the permanent teeth. The aim of this type of dental work is to diminish the necessity of reparative dentistry and to teach the children at an early age the importance of caring for their teeth. Children, who are registered at the clinics during their first year at school, may return to the unit for dental work until they graduate from the grammar school. Complete record of all the work done is kept on file so that the child's record from the first to the eighth grade may be referred to at any time.

The Boston Health Department with the cooperation of the Forsyth Dental Infirmary, the Boston School Department, and the Guild of Saint Apollonia has accomplished in this city much valuable work along the lines of preventive dentistry. There has been a rapid growth since the opening of the first clinic five years ago. In 1925, 9,151 patients were treated and in 1929, 28,672 children were given dental care at our units. This year because of a change in policy whereby we now have two full-time permanent dentists at each clinic, and the addition of two new units, we shall treat approximately 65,000 school children.

The great value of this splendid work cannot be too greatly stressed. More and more the medical profession recognizes the fact that the condition of the mouth has a most important influence on general health and that healthy teeth is one of the greatest protections against disease.

In emphasizing the necessity of the care of the first teeth, the dental division of the Boston Health Department is playing an

important part in the preservation of the health of our future men and women. A spirit of competition is apparent among the children of the lower grades of our schools; all are anxious to acquire the gold buttons proclaiming that "Dental Work Is Completed." How proudly they display them! All this work tends to educate the young in the care of the teeth; and, if we once accomplish such education, we need not fear for the teeth of our future generations.

PATIENTS TREATED AT HEALTH UNIT DENTAL CLINICS.

	January, 1929.	January, 1930.	February, 1929.	February, 1930.	March, 1929.	March, 1930.	April, 1929.	April, 1930.	May, 1929.	May, 1930.	June, 1929.	June, 1930.
West End	680	664	554	782	754	1,020	529	862	648	1,035	579	933
North End	665	439	588	649	687	1,107	590	799	648	928	406	406
South End	668	542	514	802	630	875	565	716	591	750	354	467
East Boston	650	596	650	753	744	1,039	656	922	809	993	507	594
South Boston	447	683	679	885	688	1,223	813	1,111	837	1,122	554	772
Roxbury	*	545	*	697	*	956	*	914	*	1,032	*	631
Charlestown	*	584	*	871	*	1,152	*	945	*	1,024	*	684
	3,110	4,053	2,985	5,439	3,503	7,371	3,153	6,269	3,533	6,884	2,400	4,598
Increase	943		2,454		3,868		3,116		3,351		2,198	

* Opened December, 1929.

Increase June, 1930, over June, 1929, 2,198 patients, 91 per cent.
Total patients January to June, inclusive, 1929, 18,684.
Total patients January to June, inclusive, 1930, 34,614.
Increase first six months period 1930 over same period 1929, 15,930, 85 per cent.

STUDY OF INFLUENZA MORTALITY IN SIX EPIDEMICS, 1920–29.

The Public Health Service has recently completed a study of influenza mortality in six epidemics. This study is based on weekly death rates from respiratory diseases recorded as influenza and pneumonia in about 95 cities of the Unites States during the period 1920–29.

From January 1, 1920, to the middle of 1929 six epidemics of more or less national extent have occurred in the United States — 1920, 1922, 1923, 1926, spring of 1928, and the Winter of 1928–29. Judging by the rates in the 95 cities, which seem to be only slightly higher than rates for the country as a whole, these six epidemics caused in excess of the normal or expected seasonal mortality from respiratory diseases recorded as influenza and pneumonia, approximately 250,000 deaths in the country as a whole — a total of nearly one-half as many deaths as occurred in the United States during

the great pandemic of 1918–19. About one fifth of these deaths, or 50,000, occurred during the recent epidemic of the winter of 1928–29, and two-fifths, or 100,000, occurred during the sharp epidemic of the early months of 1920.

Although these six epidemics were more or less nation wide in extent, the various sections of the United States were by no means equally affected. In the instance of several of the smaller epidemics there appeared to be whole sections of the country that were not affected. On the other hand, certain sections of the country experienced fairly sharp epidemics in years when the rates for the country as a whole did not indicate any influenza-pneumonia deaths in excess of the median weekly rates. An example of this is an epidemic in the West South Central cities which occurred in the early months of 1925, a year when the remainder of the country appeared to be relatively free from influenza.

The point of origin and direction of progress of these six epidemics varies a great deal. Nearly every one of them arose in a different section of the country. The 1920 epidemic arose in the East North Central section and progressed very rapidly to all other sections of the country. The 1922 epidemic arose in the East, probably in the Middle Atlantic section, and the 1923 epidemic arose in the East South Central section. The 1926 and the 1928–29 epidemics arose on the West Coast, and the little epidemic of the spring of 1928 probably arose in the Mountain or West South Central section.

The rate of progress across the country varies a great deal in the different epidemics. Considering the 95 cities as a whole, however, there is more uniformity in the length of the epidemic. In 1920 the central half of the deaths occurred in a period of about sixteen days. In the epidemics of 1928–29, 1922 and 1926 the central half of the deaths occurred in periods of 21, 22 and 23 days, respectively. In the small epidemic of the spring of 1928 the period was twenty-seven days, and in the epidemic of 1923 the period was thirty days. The 1923 epidemic seems to show the least time concentration of any of these recent outbreaks. In the case of all the other epidemics the excess rate rose and fell at about the same rate, but in 1923 the rise to the peak was considerably slower than the fall of the curve to the normal level again.— *U. S. Public Health Service "Health News," July 15, 1930.*

"We do not feed our children enough milk. The children of the white race, for hundreds of generations, have been dependent upon their cattle. They must have milk, good milk and plenty of milk."— *President Hoover.*

SYSTEMATIC CARE OF THE BABY.

In order to establish good habits in the baby, the mother must know what they are and how to induce them. Perhaps the first and most essential good habit is that of regularity. This begins at birth and applies to all the physical functions of the baby—eating, sleeping and bowel movements. The care of a baby is readily reduced to a system unless he is sick. Such a system is not only one of the greatest factors in keeping the baby well and in training him in a way which will be of value to him all through life, but it also reduces the work of the mother to the minimum and provides for her certain assured periods of rest and recreation.

— *Excerpt, U. S. Departmeni of Labor.*

MONEY VALUE OF A MAN.

A child in a family of $2,500 a year income class, by the time he reaches the age of eighteen years, has cost his parents a total of $7,425, according to estimates founded on statistical studies of the Metropolitan Life Insurance Company. This sum includes the cost of being born and of food, shelter, clothing, public school education, medical care, recreation, and other miscellaneous expenditures for seventeen years.— *Notes on Child Welfare Topics Compiled by the U. S. Children's Bureau.*

FORTHCOMING REPORT ON COMMUNICABLE DISEASE CONTROL.

It will be of interest to health officers to know that the Committee on Communicable Disease Control of the White House Conference on Child Health and Protection is preparing a report on the incidence and trends of communicable disease, with particular reference to those diseases most prevalent among children. The report will include a short statement on recent accomplishments in communicable disease control in all states of the union, and will be of special interest to directors of communicable disease work, as well as to health officers, because of the recommended procedures for the control of over fifty individual communicable diseases, procedures, which are to be decided upon by the committee after consulting on an average, two experts for each disease included in the study. The newer diseases, such as psittacosis as well as communicable skin diseases common among children will have a place in the report.

—*A. P. H. A. Health Officer's News Letter, July 21, 1930.*

THE CONTROL OF MEASLES.

The following letter has been received from the Massachusetts State Department of Public Health:

COMMONWEALTH OF MASSACHUSETTS,
DEPARTMENT OF PUBLIC HEALTH.

Prevention or modification of measles by the use of adult whole blood has yielded results which are so encouraging that the department is taking this opportunity to call your attention to the advantages of this method and the desirability of its use in small children.

Although the fatality rate from measles is low, nevertheless in children under three and those already debilitated it may run as high as five per cent or more. Furthermore, the control of its spread through the usual methods is often discouraging, except in delaying an attack until the child is older and more robust. The prevention of deaths is therefore the most serious problem in measles.

The value of human convalescent serum in preventing or modifying measles is well proven but it is not feasible to supply physicians with a material so hard to obtain. On the other hand, similar results may be obtained by the use of whole blood from a person who has had measles, no matter how remotely.

In practice it is best to take the blood from one of the parents. As the injection is given intramuscularly, typing is not necessary. About 20–30 c. c. of blood are drawn into a sterile syringe, the needle changed and immediately injected on the lateral aspect of the thigh of the child. To delay clotting 1 c. c. of a sterile 5 per cent sodium citrate solution may be used in the syringe, but if the injection be made immediately it is not necessary.

For best results these injections should be given as early after the first exposure as possible and not later than the fifth day. In many instances a complete temporary immunity results, in the remainder measles may occur but in a much milder form.

It is the hope of the department that deaths from measles in Massachusetts may be reduced by proper medical and nursing care of all cases, and by such passive immunization of known exposures under three years of age. The control of the measles death rate lies largely in the hands of the family physician, and in this endeavor we seek your cooperation.

GEORGE H. BIGELOW, M. D.,
Commissioner of Public Health.

WORK OF NATIONAL LEPROSARIUM DURING PAST FISCAL YEAR.

A report recently submitted indicates that during the last fiscal year at the National Home for Lepers maintained by the Public Health Service at Carville, Louisiana, forty-nine new patients were admitted. There was an average of slightly more than 300 patients in the institution during the year. It is encouraging to note that nineteen patients were released as no longer a menace to the public health. Six additional patients complied with the requirements for parole, but owing to their deformities and disfigurements, which could not be cured, these patients elected to remain in the hospital rather than be subjected to the hardships and humiliations which are frequently the portion of many paroled lepers.

The nativity of the various patients of the leporosarium indicates that Louisiana and Florida had the largest number of any of the states. There were 10 patients who were born in Ohio. Of the patients admitted during the year, California leads with 15, Louisiana follows next with 11, Texas with 6 and Florida with 5.—*U. S. Public Health Service Report.*

WORK — AND PLAY.

Work is what you are *obliged* to do. Play is what you are *not obliged* to do.

The doorkeeper in a safe and well-ordered public building, whose job perhaps is a political gift, sits with mind relaxed, tilted back in a comfortable chair. His efforts, mental and physical, are at a minimum. But he is on duty. The mountain climber on an icy peak at dawn stands with mind intent on the brink of a cliff. His efforts, mental and physical, are at maximum. But he is off duty. The mild efforts of the doorkeeper are required; the strenuous efforts of the mountain climber are made for their own sake. The doorkeeper works; the mountain climber plays.— *Harcourt, Brace & Co., New York. 1928. From "The New Exploration," a Philosophy of Regional Planning, by Benton MacKaye.*

In 1887 Bruce, a British army medical officer, discovered the organism which causes malta fever in goats and undulant fever in man. Ten years later, B. Bang, a Danish veterinarian, isolated the organism causing abortion disease in cattle. Twenty years later, in 1917, Alice Evans, an American bacteriologist, discovered the identity of these organisms.— *Veterinary Medicine, July, 1930.*

TO PHYSICIANS.

Have you attended any births during the calendar year 1929, or any previous year, wherein you failed to make a return of the births to the City Registrar?

The registration of births is of vital importance for its value to both the child and its parents, and for the record of your city in its standing among the cities of the country and the world with respect to its infant mortality rate.

There are many important instances where a birth certificate is found to be of value, especially in later life, and when it has not been reported much embarrassment is caused not only to the individual concerned but to the physician who was in attendance at the birth. We know that a birth certificate is necessary many times during life, and when we need it there is nothing that can replace it; it becomes invaluable.

SUMMARY OF WORK, JULY, 1930.

ADMINISTRATION DIVISION.

Prosecutions	5	Personnel:	
Proposals accepted	2	Permanent appointments	3
Legal notices	163	Temporary appointments	11
Settlements:		Hearings	2
Total cases	166	Leaves of absence	5
Notices	116	Budget transfer	1
Bills	50		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	862	Beverages	47
Denatured alcohol	10	Garbage	1
Hen licenses approved	32	Milk	201
Manicure-massages granted	257	Pedlers	165
Ice cream dealers approved	159	Cesspool cleaning	1
Ice cream manufacturers approved	4	Egg breaking	1
		Sausage manufacturing	1

MEDICAL DIVISION.

Reported cases	1,323	Visits:	
Nonresidents	52	By V. D. investigator	359
Deaths investigated	32	By medical inspectors to cases of communicable disease	329

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	29	
Positive for release	18	
Negative for diagnosis	502	
Negative for release	55	
No growth cultures	45	
	—	649
DARK FIELD:		
Positive	6	
Negative	2	
	—	8
GONORRHEAL OPHTHALMIA:		
Positive	1	
Negative	48	
	—	49
GONORRHEAL URETHRITIS:		
Positive	167	
Negative	741	
	—	908
GENITO URINARY TUBERCULOSIS:		
Positive	1	
Negative	10	
	—	11
MALARIA:		
Negative		5
MISCELLANEOUS EXAMINATIONS:		
Positive	25	
Negative	40	
Unclassified	186	
	—	251
TUBERCULOSIS:		
Positive	56	
Negative	232	
Unsatisfactory	12	
	—	300
TYPHOID:		
Positive	1	
Negative	24	
	—	25
SYPHILLIS:		
Positive	110	
Negative	955	
Unsatisfactory	19	
Doubtful	8	
	—	1,092
Bacteriological milk examinations		676
Bacteriological ice cream examinations		67
Total		4,041

* Smears for Vincent's angina, 34; pleural fluid for streptococci, 1; clams for B. Coli, 1; water for B. Coli, 2; swabs for analysis, 1; blood culture, 2; material from abscess for T. B., 1; paratyphoids, 2; chicken for poison, 1; filet of sole for organisms, 1; urines for eberthella typhi, 10; faeces for eberthella typhi, 10; urines for analysis, 185.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during July, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours before pasteurization, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization, and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H	12.46	3.93	15,000
Antetomasso, Peter	12.91	4 25	15,000
Brandley, T. J. & P. J	12.49	3.78	4,500
Casey, James D	12.19	3.73	38,000
Cashin, J. F., & Co	12.37	3.77	35,000
Cedar Hill Farm	12.40	3.78	1,000
Chapin, George L	12.98	5.06	10,000
Clark, Levi	12.04	3.73	7,000
Corkery, John J	12.78	4.07	28,000
Cosgrove, Martin S	12.60	3.80	20,000
Daley, John	12.22	3.73	670
Dean, Louis W.*	13.24	3.48	13,000
Deerfoot Farm Company	12.53	4.00	9,000
Denehy, Timothy	12.13	3.55	11,000
Driscoll, William B., Company	12.51	3.86	35,000
Elm Spring Farm Company	12.19	3.71	24,000
Ferguson, Malcolm D	12.61	3.75	39,000
Garfield, Mason *	14.54	5.75	1,250
Garvin, Charles	13.08	4.58	400
Giroux, J. E. & H. J	12.39	3.87	14,000
Griffin, Joseph L	12.48	3.82	12,000
Gushee, Chester W	12.50	3.83	17,000

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Hampden Creamery Company	12.25	3.45	59,000
Herlihy Brothers, Inc	12.30	3.78	46,000
Hickey, J. B	12.26	3.80	13,000
Holden, John E	12.19	3.73	13,000
Hood, H. P., & Sons, Inc	12.34	3.86	24,000
Hutchinson, Frank T	12.48	4.08	25,000
Jones, William T. Company	12.09	3.70	15,000
Kendall Brothers	12.42	3.60	24,000
Kingston Brothers	12.36	3.73	12,000
Knapp, George J	12.50	3.78	39,000
Lang Brothers	12.08	3.75	10,000
Larsson, Charles	12.21	3.57	48,000
Lyndonville Creamery Association	12.74	4.03	16,000
Lyons, William A	12.67	3.85	19,000
Manning, Harriet	12.31	3.77	20,000
McAdams, J. F., & Brothers, Inc	12.49	3.88	11,000
McKernan, John	12.49	3.80	29,000
New England Creamery Products Company *	12.58	4.06	48,000
Prescott, J. B., Company	12.45	4.18	5,000
Robinson, A. J	13.01	4.18	44,000
Schuster, Adam	12.62	3.89	29,000
Seven Oaks Dairy Company	12.26	3.83	14,000
Shick, Jacob	12.28	3.70	11,000
Somerset Farms Creamery Company	13.22	4.40	13,000
Sterling Farms Milk Company	12.40	3.77	12,000
Stone, H. L	12.29	3.80	2,000
Stuart, W. E., Company	12.29	3.89	14,000
Turner Centre System	12.23	3.80	12,000
United Farms Co-operative Creamery Association, Inc	12.53	3.96	22,000
Walker-Gordon Laboratory Company *†	12.20	3.70	100
Weiler, E., & Son	12.39	3.91	23,000
Westwood Farms Milk Company	12.20	3.76	10,000
White Brothers	12.60	3.93	32,000
Whiting Milk Companies	12.22	3.72	19,000
Whittemore, Warner D	12.47	3.75	21,000
Williams, Edward C	12.35	4.15	1,300
Wiswall, Granville A	12.26	3.67	27,000
Woodland, Charles L	13.14	4.50	18,000

* Milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic and Pacific Tea Company.	Hood, H. P., &. Sons, Inc..	12.25	3.78	15,000
M. Brown & Son.....	Whiting Milk Companies...	12.41	3.80	23,000
The Cloverdale Company.....	Herlihy Brothers, Inc.....	12.41	3.75	29,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.29	3.70	62,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Association, Inc.	12.88	4.25	12,000
Morgan Brothers Company....	New England Creamery Products Company.*	12.78	4.15	28,000
M. Winer Company.....	M. Winer Company.....	12.65	3.98	76,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.24	4.59	11,000
Cosgrove, Martin S.....	13.36	4.60	10,000
Dean, Louis W.*.....	13.79	4.80	9,000
Elm Spring Farm Company.....	13.00	4.26	22,000
Griffin, Joseph L.....	13.10	4.33	10,000
Gushee, Chester W.....	12.71	4.20	9,000
Herlihy Brothers, Inc.....	12.66	4.27	15,000
Hood, H. P., & Sons, Inc.*.....	12.65	4.20	11,000
Jones, William T., Company.....	12.64	4.00	13,000
Lyndonville Creamery Association.....	12.78	4.10	10,000
McAdams, J. F., & Brothers, Inc.....	12.72	4.27	8,000
Robinson, A. J.....	13.21	4.55	1,400
Seven Oaks Dairy Company.....	12.74	4.20	17,000
Sterling Farms Milk Company.....	12.28	4.08	8,000
Turner Centre System.....	12.67	4.19	7,000
Weiler, E., & Son.....	13.06	4.27	10,000
White Brothers.....	13.04	4.45	8,000
Whiting Milk Companies.....	12.55	4.10	14,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P., & Sons, Inc.*	Own	12.97	4.05	4,800
Walker-Gordon Laboratory Company.*	Own	12.37	4.00	4,500
Whiting Milk Companies	Hampshire Hills	11.92	3.40	2,800

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for certified milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P., & Sons, Inc.*	Own	12.97	4.15	250

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	380
Milk from stores	752
Brought by citizens	2
Vinegar	30
Water	5
Miscellaneous	3
Samples referred to Bacteriological Laboratory for examination:	
Milk	676
Ice cream	67
Court cases	23
Fines	$260

DAIRY DIVISION.

Total services	1,555	Inspections of milk plants and licensed dealers	249
Dairies inspected	891	Bacteriological examinations	45
Scoring above 50*	645	Country creamery inspections	14
Scoring below	246	Sediment tests	321
With milk rooms	706	Investigation of high bacterial counts	6
Without milk rooms	185		
Inactive	29		
Total cattle inspected	12,621		

* Passable mark.

FOOD INSPECTION DIVISION.

July, 1930.

District inspections	2,359
Reinspections	341
Market inspections	924
Terminal inspections	540
Vehicle inspections *	3,098
Complaints	37
Notices to abate	91
Condemnations	18,927 pounds
Sample taken	1
Pedler Service:	
Numbers assigned	265
Licenses certified	165
Vehicles approved	1,020
Licenses to remove swill	1

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	2,521	Parts condemned	863
Calves inspected	3,505	Animals condemned	39
Swine inspected	2,649	Total of meat condemnations (pounds)	18,737
Sheep inspected	362		

SANITARY DIVISION.

Original inspections	2,583	Complaints investigated	718
Causes for action found	1,684	Nuisances abated	1,845
Reinspections	5,977	Routine inspections	2,015
Legal notices served	139		

The first casualty among the personnel of the United States Army in the World War, according to the records of the War Department, was that of a noncombatant, Lieut. Louis J. Genella of the Medical Corps of the United States Army, who was wounded by a shell on July 14, 1917, while serving with the British forces. He recovered.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	17	113	109	222	39	34	73
East Boston	14	65	85	150	9	16	25
North End	12	32	88	120	5	11	16
West End	12	34	21	55	2	1	3
South Boston	12	63	45	108	21	10	31
Boston Dispensary	8	16	9	25	3	—	3
Brighton	9	12	19	31	2	4	6
Charlestown	10	24	76	100	6	13	19
Codman Square	13	73	63	136	9	10	19
Hyde Park	10	54	46	100	6	—	6
Arcadia Street	5	15	40	55	—	2	2
Roxbury	5	56	61	117	6	18	24
Totals	127	557	662	1,219	108	119	227

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	37	27	38	116
East Boston	37	9	—	35
North End	11	5	—	30
West End	4	1	—	—
South Boston	15	11	25	35
Boston Dispensary	2	1	—	—
Brighton	8	2	—	—
Charlestown	17	2	—	17
Codman Square	24	4	—	—
Hyde Park	13	6	—	—
Arcadia Street	6	—	—	—
Roxbury	19	5	—	15
Totals	193	73	63	248

THE DISGRACE OF SMALLPOX.

Smallpox continues to be the great discredit to this country in that three thousand more cases were reported in 1928 than in 1927 and reports seem to indicate that 1929 will show an increase over 1928.

No country in the world exceeds the United States in the reported cases of smallpox with the exception of India.

— *From New England Journal of Medicine, January 2, 1930.*

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING JULY, 1930.

Classification.	Number.	Percentage.
After death	12	30.00
Seven days or less	2	5.00
Eight to fourteen days, inclusive	2	5.00
Fifteen to twenty-one days, inclusive	1	2.50
Twenty-two to thirty-one days, inclusive	1	2.50
Within First Month. (Total)	18	45.00
Within second month	3	7.50
Within third month	6	15.00
Within fourth month	1	2.50
Within fifth month	1	2.50
Within sixth month	2	5.00
Within seventh month	1	2.50
Within eighth month	—	—
Within ninth month	—	—
Within tenth month	1	2.50
Within eleventh month	—	—
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	33	82.50
Within second year	4	10.00
Within third year	—	—
More than three years	3	7.50
Grand totals	40	100.00

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF JULY, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	35	5	26	3
North Reading State Sanatorium	3	3	2	3
Lakeville State Sanatorium	7	11	3	—
Rutland State Sanatorium	3	—	2	1
Westfield State Sanatorium	—	—	1	1
Tewksbury	—	1	—	1
Totals	48	20	34	9

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	—	2	1	1
Plymouth County Sanatorium	—	—	—	1
Channing Home	—	2	—	—
United States Veterans' Hospital	6	—	3	—
Doctor Crane's Sanatorium	2	1	—	1
Totals	8	5	4	3

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, July, 1930.

Inspections	22
Physical examinations	1,487
Schick tests	7
Toxin Anti-toxin	167
Toxoids	4
Vaccinations	319
Vaccination certificates	167
Day nursery visits	3
Conferences	20

Report of Child Health Conferences, July, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	229	15	244	35	1	36	5	48
31 Lincoln street, Brighton	97	43	140	18	9	18	5	28
Charlestown Municipal Building	489	54	543	48	2	50	9	60
Codman Square Library	431	44	475	83	8	91	9	53
Columbia Road Municipal Building	375	9	384	47	2	49	9	43
1 Arcadia street, Dorchester	368	24	392	80	7	87	10	39
East Boston Health Unit	361	46	407	87	4	91	8	51
Hyde Park Municipal Building	292	58	350	59	8	67	10	35
Curtis Hall, Jamaica Plain	284	40	324	47	3	50	5	65
41 North Margin street	250	90	340	41	6	47	10	34
Roslindale Municipal Building	199	40	239	34	3	37	4	59
Roxbury Health Unit	732	37	769	110	7	117	14	55
Children's Hospital	147	13	160	32	—	32	5	32
1049 Columbus avenue	499	64	563	74	1	75	10	56
133 Dorchester street, South Boston	410	116	526	87	27	114	10	53
Shawmut Avenue Municipal Building,	—	—	—	—	—	—	—	—
57 East Concord street	441	42	483	60	3	63	10	48
122 Tyler street	147	27	174	25	—	25	5	35
17 Blossom street	320	63	383	38	2	40	9	42
Totals	6,071	625	6,996	1,005	84	1,089	147	46

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, JULY, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	3	4	5	12	10
31 Lincoln street, Brighton	1	—	—	1	23
Charlestown Municipal Building	13	18	13	44	67
Codman Square Library	10	13	13	36	45
Columbia Road Municipal Building	3	6	6	15	57
1 Arcadia street, Dorchester	12	14	17	43	80
East Boston Health Unit	12	7	11	30	25
Hyde Park Municipal Building	5	10	4	19	35
Curtis Hall, Jamaica Plain	—	1	1	2	50
41 North Margin street	—	—	7	7	—
Roslindale Municipal Building	—	—	1	1	23
Roxbury Health Unit	5	8	10	23	45
Children's Hospital	5	3	5	13	—
1049 Columbus avenue	5	6	3	14	56
133 Dorchester street, South Boston	—	—	—	—	20
Shawmut Avenue Municipal Building	—	—	—	—	—
57 East Concord street	1	2	—	3	23
122 Tyler street	—	—	—	—	7
17 Blossom street	—	1	—	1	1
Totals	74	93	96	264	567

DENTAL ACTIVITIES AT HEALTH UNITS, JULY, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
Number of cases seen	284	181	84	279	433	305	253	1,819
Number of treatments:								
By dentists	442	326	119	475	441	173	330	2,306
By hygienists	—	25	—	15	28	23	43	134

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, JULY, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
BOSTON DISPENSARY:								
Calls by district physicians	40	.....	60	.....	31	.....	25	156
BOSTON LYING-IN HOSPITAL:								
Number of prenatal clinics	4	4	5	4	5	5	.....	27
Attendance	45	75	55	17	91	45	.....	328
New cases	14	14	16	4	24	14	.....	86
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,603	2,594	1,509	2,295	2,466	2,693	1,333	14,493
Cases referred	171	.....	49	218	.....	.....	85	523
Diseases reported	3	.....	2	.....	21	1	9	36
MOTHERS' CLUB:								
Number of meetings	5	5	.....	5	3	3	5	26
Attendance	51	51	.....	75	27	31	22	257
FAMILY WELFARE SOCIETY:								
Number of meetings	1	4	.....	.....	.....	.....	.....	5
Attendance	3	29	.....	.....	.....	.....	.....	32
CHILDREN'S HOSPITAL:								
Infantile clinic	5	3	.....	4	4	3	.....	19
Attendance	30	6	.....	31	47	21	.....	135
STATE DEPARTMENT OF MENTAL DISEASES:								
Number of habit-forming clinics	.....	.....	.....	.....	.....	.....	5	5
Attendance	.....	.....	.....	.....	.....	.....	35	35
New cases	.....	.....	.....	.....	.....	.....	1	1
HEALTH DEPARTMENT:								
Refraction Service:								
Number of diagnosis	.....	.....	40	.....	.....	.....	.....	40
New glasses recommended	.....	.....	17	.....	.....	.....	.....	17
New cases	.....	.....	12	.....	.....	.....	.....	12
Attendance of children at playground	3,115	3,100	3,995	3,035	1,800	.....	.....	15,045

VEGETABLES IN YOUR DIET.

Green vegetables will help to tone up the system. At least one green vegetable should be eaten every day in the year, as they are rich in minerals,— especially the dark green ones.

NURSING SERVICE.

REPORT FOR JULY, 1930.

HOMES VISITED			12,810
CHILD HYGIENE:			
Visits to new cases		1,257	
Visits to old cases		7,518	
			8,775
Included are:			
Wrong addresses	79		
* Not seen	768		
Absent visits	847		
COMMUNICABLE DISEASES:			
Visits to new cases		865	
Visits to old cases		1,257	
			2,122
Included are:			
Wrong addresses	41		
* Not seen	126		
Absent visits	167		
TUBERCULOSIS:			
Visits to new cases		209	
Visits to old cases		3,893	
			4,102
Included are:			
Wrong addresses	46		
* Not seen	344		
Absent visits	390		
Positive case visits	1,803		
Contact case visits	1,486		
Suspect case visits	423		
	4,102		
MISCELLANEOUS VISITS:			
Infant death investigation		0	
Maternal death investigations		0	
Patients accompanied to hospital		4	
Visits to day nurseries		2	
Visits to parochial schools		0	
			6
Total number of visits			15,005

	Hrs.	Min.
Hours in station by nurses	2,860	33
Hours at baby and pre-school conferences	1,848	50
Hours at tuberculosis clinics	768	25
Total number of hours	5,477	48

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

VITAL STATISTICS, JULY, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING JULY, 1930, WITH COMPARATIVE FIGURES FOR JULY, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	**726**	780	—54	**10.74**	11.62	—.88
Nonresidents deducted	**576**	608	—32	**8.52**	9.06	—.54
By Age:						
Under one year	**73**	77	—4	**1.08**	1.15	—.07
One year to four years, inclusive	**27**	25	+2	**.40**	.37	+.03
Sixty years and over	**315**	310	+5	**4.66**	4.62	+.04
Infant and Maternal Mortality:						
a. Total registered live births	**1,205**	1,270	—65	**17.82**	18.92	—1.10
b. Registered stillbirths	**38**	30	+8	**.56**	.45	+.11
Stillbirths per 1,000 live births and stillbirths	—	—	—	**30.57**	23.08	+7.49
c. Deaths of mothers from causes incident to childbirth	**5**	8	—3	**.07**	.12	—.05
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	**4.02**	6.15	—2.13
d. Deaths in first year per 1,000 live births	—	—	—	**60.58**	60.63	—.05

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	**33**	42	—9	**48.8**	62.6	—13.8
Homicides	**2**	—	+2	**3.0**	—	+3.0
Suicides	**4**	11	—7	**5.9**	16.4	—10.5
Automobile accidents* (deaths in Boston)	**8**	9	—1	**11.8**	13.4	—1.6
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	**10**	7	+3	**14.8**	10.4	+4.4
Broncho-pneumonia	**37**	27	+10	**54.7**	40.2	+14.5
Cancer	**109**	99	+10	**161.2**	147.5	+13.7
Cirrhosis of the liver	**6**	5	+1	**8.9**	7.4	+1.5
Diabetes mellitus	**14**	22	—8	**20.7**	32.8	—12.1
Diarrhea and enteritis (under two years)	**9**	10	—1	**13.3**	14.9	—1.6
Degenerative Diseases, So Called:						
Arteriosclerosis	**10**	32	—22	**14.8**	47.7	—32.9
Cerebral hemorrhage	**47**	46	+1	**69.5**	68.5	+1.0
Heart disease	**144**	143	+1	**213.0**	213.1	—.1
Nephritis, chronic	**49**	46	+3	**72.5**	68.5	+4.0

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, JULY, 1930.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 100,000 OF POPULATION.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
REPORTABLE DISEASES:						
Anterior poliomyelitis.....Cases..	**9**	1	+8	**13.3**	1.5	+11.8
Deaths.	—	1	—1	—	1.5	—1.5
Cerebrospinal meningitis.....Cases..	**1**	1	—	**1.5**	1.5	—
Deaths.	—	1	—1	—	1.5	—1.5
Diphtheria.....Cases..	**50**	97	—47	**74.0**	144.5	—70.5
Deaths.	**1**	4	—3	**1.5**	5.9	—4.4
Influenza.....Cases..	**2**	2	—	**3.0**	3.0	—
Deaths.	—	1	—1	—	1.5	—1.5
Measles.....Cases..	**398**	117	+281	**588.7**	174.3	+414.4
Deaths.	**4**	—	+4	**5.9**	—	+5.9
Pneumonia (lobar).....Cases..	**33**	29	+4	**48.8**	43.2	+5.6
Deaths.	**10**	12	—2	**14.8**	17.9	—3.1
Scarlet fever.....Cases..	**73**	69	+4	**108.0**	102.8	+5.2
Deaths.	**2**	—	+2	**3.0**	—	+3.0
Tuberculosis (pulmonary).....Cases..	**112**	129	—17	**165.7**	192.2	—26.5
Deaths.	**40**	44	—4	**59.2**	65.6	—6.4
Tuberculosis (other forms).....Cases..	**34**	21	+13	**50.3**	31.3	+19.0
Deaths.	**7**	7	—	**10.3**	10.4	—.1
Typhoid fever.....Cases..	**4**	10	—6	**5.9**	14.9	—9.0
Deaths.	—	2	—2	—	3.0	—3.0
Whooping cough.....Cases..	**202**	192	+10	**298.8**	286.1	+12.7
Deaths.	**6**	2	+4	**8.9**	3.0	+5.9

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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VOL. 19. BOSTON, SEPTEMBER, 1930. NO. 9

TRACHOMA.

Napoleon's soldiers returning from Egypt and the Levant brought back with them a contagious eye affection which they spread among the civilian population of France. Oriental ophthalmia, or Egyptian eye disease, as this malady has been known, is today generally referred to as trachoma, by reason of the granular formation which constitutes its essential characteristic. Napoleon's soldiers spread trachoma, but they were not responsible for its original introduction into Europe.

It can easily be established historically that before Napoleon was born trachoma was a common cause of disability and blindness in parts of Western Europe, including Ireland, and among the British colonists in certain localities in North America. It possibly also was to be found among the aborigines. In the Orient, trachoma is evidently a very ancient disease. In early Assyrian and Egyptian drawings one may often see the characteristic droop of the trachomatous eyelid depicted in the human figures.

The chronic character of trachoma tended to make the people of Europe, as in the East, accept it, its troublesome exacerbations and progressive impairment of vision with a sort of fatalistic resigna-

tion. Its spread among conscripts in barracks was, however, so productive of military ineffectiveness that military commanders sometimes deemed it necessary to make efforts for its control and no better information regarding the epidemiology and clinical aspects of trachoma is available today than has come to us from the studies of old European military surgeons.

In 1897 something happened to arouse world-wide interest in trachoma and give the prevention of trachoma a new and financial aspect. It was the action of the United States Government in making an alien afflicted with trachoma inadmissible to this country. Similar action has since been taken by other governments and finally the prevention of trachoma has been seized upon as one of the activities of the League of Nations.

Thirty-five years ago every hospital out-patient dispensary in New York City maintained a clinic for the treatment of trachoma. The same was true of our other large cities. No social class was exempt from the disease. The most prominent ophthalmologists in New York counted among their patients wealthy native-born professional and business men and members of their families who had contracted trachoma from unknown sources of infection.

Aliens with trachoma were pouring into the country on every ship. Those of us who were endeavoring to put into operation at Ellis Island such a medical examination of arriving aliens as was contemplated in the recently enacted federal immigration laws of 1891 and 1893 were picking out the most conspicuous cases and pointing out by certification to the officials empowered to determine the admissibility of aliens, the liability of a case of trachoma to seek treatment at public expense and eventually to become blind. It was not unusual to see seventy-five or more cases of typical trachoma on a single ship. Only occasionally one arriving in a stage of active exacerbation would be excluded and then as "likely to become a public charge."

In 1897 Dr. Myles Standish of Boston made at some convention of oculists an address which was given considerable publicity and in which Doctor Standish stated that trachoma would tend to "die out" in this country were it not for the new cases which were constantly coming here from abroad. The officer of the United States Public Health Service (then the Marine Hospital Service) in charge of the medical work at Ellis Island was Surgeon Joseph H. White, who afterwards distinguished himself by stopping a bad epidemic of yellow fever in New Orleans before the arrival of frost, the first time the fever-bearing mosquitoes had ever been suppressed in our Southern States without the help of cold weather.

In our immigration laws was a clause making an alien afflicted with "a dangerous contagious disease" inadmissible to the country, and, taking advantage of Doctor Standish's address to supplement a statement of conditions which we were encountering at Ellis Island, Doctor White secured a ruling by competent official authority at Washington that any and every case of trachoma was to be regarded as a *dangerous contagious disease* within the meaning of the immigration laws.

Trachoma is undoubtedly less common in Europe today than twenty years ago. Just how much of the decrease in prevalence there may be due directly or indirectly to the action of our government above referred to and how much to better food and living conditions which have promoted resistance to other communicable diseases as well as to trachoma or its complications, it is impossible to say.

Whether in his unfinished work the late Doctor Noguchi actually identified the causal agent of trachoma appears to be still open to question. Certainly no cure for the condition has been discovered, nor has anything new, in principle, been developed in the way of operative procedure. Methods of prevention are no different from those advocated by the old European military surgeons. It is true, of course, that improvements in palliative treatment and developments in the technique of various operative procedures have made treatment more effective in preventing destructive complications. Such improved treatment has become more widely available and the action of the United States Government has served as a tremendous incentive for persons with trachoma to take treatment. The ruling that trachoma was a "dangerous contagious disease" carried with it the automatic imposition of a penalty of $100 on the shipowners for every case of trachoma taken aboard. The transportation companies therefore found it necessary to put into operation not only at seaports of departure, but through their booking agents at interior points where emigration was being developed, medical examinations of prospective passengers sufficiently effective to reduce the impositions of penalties on arrival here within the limits of what the particular steamship company might regard as good business policy. European transportation agents or passage brokers saw prospective profits diminished in proportion to the prevalence of trachoma in the districts in which they were operating. It was often a serious matter, financially and in other ways, for foreign-born residents of this country to find that they were unable to bring here other members of their families because afflicted with trachoma. Moreover, in the rural communities from which our immigration was derived, there

was a tendency for any cause of inadmissibility to America to be regarded as something of a disgrace, a blot on the family escutcheon, which should be removed if possible. While all these factors stimulated interest in trachoma, and in treatment therefor, it does not necessarily follow that they actually operated to lessen possible opportunites for infection.

So far as the United States is concerned, however, it was not long before it was evident that Doctor Standish's prediction was correct. Hospitals have closed their trachoma clinics. The typical cases of trachoma which we used to see every day at Ellis Island are looked on now as a curiosity when one turns up at an eye clinic in our Eastern cities. Trachoma is still a serious problem among our Indians and in some districts in our Southern mountain regions, but the greatest interest which trachoma possesses for the average American today is probably to be found in the illustration which trachoma furnishes of the disastrous consequences of an effort of nature that is primarily protective in its object.

If the officials at Washington had foreseen some of the consequences of declaring trachoma to be "a dangerous contagious disease" they might have hesitated to commit themselves to decisive action as they did. The Washington conception of trachoma was very likely derived from a recollection of some blind beggar in Cairo with a fringe of flies feeding around an eye that looked like a boiled onion. It is not generally realized that the Cairo beggar exemplifies the possibilities of an eye affection which for considerable periods of time may manifest itself merely as an annoying irritation of the eyes without noticeable inflammatory symptoms.

The policy adopted by the United States Government made it necessary to exclude every case of trachoma no matter how mild the symptoms at the time of arrival. Apparently inconsequential cases of conjunctivitis were common among arriving passengers. Most of such cases cleared up promptly under treatment or perhaps without treatment, but some of them would not and in a few weeks would develop recognizable evidence of trachoma in spite of any form of treatment then or now known. Presumably they were infected by contact with cases of trachoma on shipboard, but to what extent, if any, the cases of conjunctivitis which recovered were due to the same source of infection nobody knows.

Transportation interests protested that it was impracticable to attempt to institute a medical examination of prospective passengers that would prevent the embarkation of cases of trachoma.

The addition of cases of trachoma as a cause of exclusion of an alien served further to remind us that over 80 per cent of our immi-

gration was financed directly or indirectly from this country and that those financially interested in preventing the exclusion of individual aliens command the political power here to so make their wishes felt that one retiring department head was led to state that in his four years of office he had never known an arriving alien so undesirable physically, mentally or morally that some senator or representative could not be induced to interest himself in efforts to prevent deportation. Public sentiment may indorse immigration laws in the abstract, but it does not support their enforcement in concrete cases.

When confronted with the duty of recognizing trachoma in any form and especially in its early stages, we naturally turned to the medical profession for help when diagnosis appeared not to be clear. We were soon made to realize that many ophthalmologists did not know trachoma when they saw it. In their clinics they saw trachoma only in stages when it was giving such trouble as to lead persons to seek medical relief. Many ophthalmologists, we also came to discover, were really not entirely sure of the normal appearance of the conjunctiva of the everted eyelid. They saw eyelids only when something or other was giving trouble. Our real professional help came from the relatively few ophthalmologists who had given special study to trachoma for some particular reason.

Medical help was secured also by those who were endeavoring to prevent the exclusion of trachomatous aliens. Official diagnoses were disputed by ophthalmologists whose unfamiliarity with certain manifestations of trachoma made them fail to recognize a case when they saw it. Among them was the ophthalmologist who recognized a follicular conjunctivitis, but not the concomitant trachoma. Then there was the ophthalmologist of high repute who was ready to claim that his special operative technique would and did "cure" cases of trachoma. Besides professional opinions which were excusable though wrong there were also those which caused one department head to state bluntly, "I am a lawyer, and a lawyer knows that he can get any kind of medical testimony which he wants to pay for."

With some comparatively brief periods of intermission when detailed to other official duties, trachoma furnished the writer with a daily cause of mental activity for about twenty years. He was called on to contend with every device which politicians or the legal profession could think of to prevent the exclusion of aliens with trachoma. With his interest in the subject thus stimulated, the writer has personally scrutinized the eyes of more than two million persons with a view to the detection of disease. He has personally

everted the eyelids and pushed down and examined the retrotarsal conjunctival fold of more than five hundred thousand persons from all parts of the world. There are probably other officers of the United States Public Health Service who now have exceeded this record of examinations. Many others have given trachoma a different sort of study, but by his experience the writer has been impressed with the practical aspects of the features of trachoma herein mentioned, in connection with any program for the control of the disease.

Trachoma is primarily a disease of the conjunctiva, the membrane which lines the eyelids, extends back loosely over the top of the eyeball and comes down over the front of the eye. Trachoma is characterized by the formation of small, firm granules, composed chiefly of connective tissue and which are always to be distinguished from little groups of lymph follicles constituting a so-called follicular conjunctivitis which is likely to develop rapidly from any irritation of the eyes, especially in the young. Trachoma is also to be distinguished from some comparatively rare coarser growths in the conjunctiva, of which so-called *vernal catarrh* is an example.

Trachoma usually develops insidiously, without evidence of serious conjunctivitis, although there is no reason to believe that some complicating initial infection might give it a violent onset. In our cases presumably infected on shipboard, recognizable symptoms of trachoma usually appeared within three or four weeks, but the writer recalls a case in a state institution which manifested itself as a mild intractable conjunctivitis for at least six months before the appearance of any evidence of trachoma which the writer was able to recognize. Early trachoma may sometimes be more easily demonstrable on the lower than upper eyelid. Early positive evidence of trachoma can usually be best demonstrated in the retrotarsal fold, otherwise referred to as the "cul-de-sac." A complicating inflammatory swelling of the eyelids may make it impossible to distinguish the granules on which the early diagnosis of trachoma depends.

Trachoma is a contagious disease. Presumably it may be conveyed indirectly as well as directly by contact. European military authorities have held that it may be transmitted by the dust of rooms occupied by cases of trachoma. The recent idea that trachoma is an expression of a dietary deficiency is incredible. Trachoma is found among all kinds of people with all sorts of dietary habits from the equator to beyond the Arctic circle. Moreover, travelers of all ages and nationalities, and of every social status, have contracted trachoma from very brief association with people among whom the disease prevails. It is to be remembered, however, that the destruc-

tive effects of trachoma are really due to complicating infections with common organisms, to the action of some of which, at least, resistence is doubtless promoted by diet or anything else favorable to the maintenance of general health. Nevertheless, the writer has seen instances of escape from infection under circumstances which could hardly be explained except as cases of individual immunity. Then, too, it is not very unusual to find a well-established case of trachoma in one eye only. We also see cases in which the trachomatous process in the eyelids has stopped spontaneously. If we were correct in our hypothesis that some of the cases of conjunctivitis among arriving immigrants that quickly recovered were really due to the same infection which produced trachoma in others we have further examples of what practically amounts to immunity to trachoma.

When a case of trachoma ceases to be contagious cannot in the light of present knowledge be determined. As a general principle, we may assume that the danger to others is directly proportionate to the amount of secretion which is being scattered about by a trachomatous eye from time to time.

Since they are usually due to complicating infections, the exacerbations of active inflammation of a case of trachoma may grow no less violent as time goes on. The activity of the trachomatous process itself tends to subside in two or three years, even though it may continue on at a slower pace for years until the entire conjunctiva is destroyed. Whether in some cases the virulence of the trachomatous infection may likewise tend to diminish or disappear as time goes on we do not know, but instances have been repeatedly observed in which persons have unquestionably contracted trachoma from old so-called "parchment lid cases," cases so advanced that the normal conjunctiva had apparently been completely destroyed and no further evidence of the trachomatous process was to be observed.

When a bullet or a piece of shrapnel is left in the body nature tries to envelop it with a layer of connective tissues and thus isolate it from contact with more highly specialized adjacent bodily structures. When invading bacteria start a local infective process, nature tries similarly to prevent an extension of the process by building up about the locality an impervious wall of connective tissue. If the formation of the little trachoma granule be studied, it will be seen that it is likewise a process of trying to surround an as yet unidentified something with a protective capsule of connective tissue. While the process may be successful in thus isolating an unknown harmful something there results indirectly disastrous consequences to the eye in other ways.

The trachomatous granules push up the conjunctiva of the eyelids and convert the naturally smooth epithelial membrane into a rough surface which has been compared with sandpaper. The constant attrition of the roughened eyelid on the eyeball renders the latter liable to infection from any sort of common infective organisms which may find their way into the eye. The constant irritation of the eyes also diminishes its sensitiveness and the protective reflex action which normally results in the washing away of harmful material in a flood of tears. An inflammation of the cornea, a keratitis, and corneal ulcers may be very early complications of trachoma.

A trachomatous process may also start up in the conjunctiva covering the eyeball as a result of the rubbing of the diseased lid. A pannus, so called, is supposed to indicate such a process.

The conjunctival epithelium over a trachomatous granule eventually gives away and the contents of the granule extrude. At the point where this occurs the conjunctival epithelium is permanently destroyed and is replaced by scar tissue (connective tissue). In this way trachoma destroys the normal palpebral conjunctiva, the natural lining of the eyelids, bit by bit, and in the course of years replaces it entirely by scar tissue.

Whenever scar tissue is formed, wherever it may be, it contracts after a while and the tendency of the formation of scar tissue in an eyelid is to pucker up the diseased lid and increase its irritating pressure on the eyeball. Worse still the puckering of the eyelid tends to turn in the eyelashes so that they scratch the eyeball (trichiasis).

The consequences of a trachomatous infection may conceivably vary with possible variations in the virulence of the essential infecting agent. The damage to eyesight will certainly depend upon the character of accidental complicating infections and the individual's degree of resistance to them. But from what has been above stated, it is evident that the dangers of trachoma are largely a mechanical matter, the result of the rubbing of an abnormal eyelid against the eyeball. Given a close fitting eyelid, serious trouble may be looked for from the start. In persons with large loose eyelids, trachoma is usually a much less serious matter. The writer has seen such cases in which the normal conjunctiva of the lids has been completely replaced by scar tissue without noticeable damage to eyesight.

This matter has a practical bearing on treatment. Whatever may tend to smooth the inside of the eyelid and decrease irritating friction of the eyeball will alleviate the symptoms of trachoma. Any operative procedure which eventually leaves the inner surface of

the lid rougher than it was before does more harm than good in the long run. Anything which tends to increase the slack in an eyelid will be of lasting benefit in a case of trachoma. The removal of the tarsal cartilage from the eye is often followed by marked alleviation of serious symptoms.

As should be expected, any form of treatment, operative or otherwise, gives better results when applied to a case that has been running for several years without serious damage and is showing a tendency for the activity of the initial infection to abate than if applied to a recent initial infection. An obliteration of recognizable granules does not mean a cure of trachoma. A year or two after supposed cures, granules may be seen to have reappeared and it will be evident that the granular destruction of the conjunctiva is still going on.

Nor does a disappearance of symptoms mean a cessation of danger of transmitting the disease to others. As already stated we have unquestionable evidence that cases in which all recognizable evidence of a trachomatous process has ceased have been a source of infection. Cumulative experience has definitely shown that such close association as living in the same household with a person who has once been a case of trachoma is to be avoided if possible. Where there is less intimate association with supposedly cured cases of trachoma the danger is probably negligible. The real practical danger from a case of trachoma may be assumed to be directly proportional to the amount of secretion which the case is giving off. Years ago the New York City school authorities adopted the very sensible procedure of admitting children with trachoma to the public schools, keeping them under daily observation and excluding them temporarily for treatment whenever visible secretion appeared in the eyes.

EARLY TRAINING OF THE CHILD.

The training in the use of individual judgment can be begun even in infancy; a child should early be taught to choose certain paths of action for himself; and if he is continually and absolutely forbidden to do this or that he is sometimes seriously handicapped later, because he does not know how to use his own reasoning faculties in making these choices. On the other hand, obedience is one of the most necessary lessons for children to learn. A wise mother will not abuse her privilege in this respect by a too exacting practice. For the most part she can exert her control otherwise than by commands, and if she does so her authority when exercised will have greater force, and instant obedience will be more readily given.

—Excerpt, U. S. Department Labor, Children's Bureau.

AN ORDER RELATIVE TO TRANSPORTATION OF CATTLE AFFECTED WITH CONTAGIOUS OR INFECTIOUS ABORTION.

The following letter has been received from the Division of Animal Industry:

THE COMMONWEALTH OF MASSACHUSETTS,
DIVISION OF ANIMAL INDUSTRY,
STATE HOUSE, June 24, 1930.

To transportation companies, Inspectors of Animals, and persons whom it may concern:

SECTION 1. A bovine animal which has recently aborted or which has given a positive or suspicious reaction to the egglutination or complement fixation test for Beng abortion disease (contagious or infectious abortion) shall not be shipped, driven, transported or moved into the Commonwealth of Massachusetts except upon and accompanied by a special permit issued by the director of animal industry.

SEC. 2. Any animal brought in on a permit as referred to in Section 1 of this order is hereby declared to be in quarantine and must be held in isolation at the risk and expense of the person, firm or corporation owning the same until released by the order of the director.

SEC. 3. An animal as referred to in Section 2 of this order after passing two approved negative blood tests for Beng abortion disease made after arrival and at least three months apart may be released by the director.

This order shall be published by the inspector of animals in each city and town in the commonwealth by filing a copy hereof with the city clerk or town clerk as the case may be and by posting a copy hereof in a conspicuous place within the city or town for which he is the inspector of animals.

EVAN F. RICHARDSON,
Director of Animal Industry.

THE CANCER PROBLEM.

Nurses can make themselves reliable sources of authentic information with respect to the prevention, recognition, and care of cancer cases. Public health nurses have an unusual opportunity for detecting early cases which would otherwise escape recognition until they had passed to an incurable stage, and by exerting an intelligent influence on these cases they may be able to induce them to seek immediate and competent treatment.— *Excerpt from the Bulletin American Society for Control of Cancer, September, 1930.*

FIFTY-NINTH ANNUAL MEETING OF AMERICAN PUBLIC HEALTH ASSOCIATION.

For the first time in the fifty-nine years of the history of the American Public Health Association, Texas is to have the honor of entertaining the association at one of its annual conventions. The fifty-ninth annual meeting will be held in Fort Worth on October 27 to 30.

Some indication of the importance of this convention to the public health workers of this country, Canada, Mexico and Cuba, is reflected in the work of preparing the program of sessions and speakers which has been going on for months in the headquarters' office of the association at 370 Seventh avenue, New York City.

Nearly two hundred speakers, among them some of the country's leading health officers, physicians, scientists, sanitary engineers, dietitians, experts in epidemiology, in child and industrial hygiene, public health education and nursing, will address the forty-four sessions and symposiums which will be held during the four days of the convention in the Hotel Texas of Fort Worth.

SUMMARY OF WORK, AUGUST, 1930.

ADMINISTRATION DIVISION.

Prosecutions	7	Personnel:	
Proposals accepted	2	Temporary appointments	3
Legal notices	140	Temporary appointments terminated	2
Settlements:		Leaves of absence	2
Total cases	67	Change in rating authorized	1
Notices	48		
Bills	19		
Vacate notice	1		
Forcible removal	1		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits		Ice cream manufacturers approved	14
Denatured alcohol	25	Lying-In Hospitals approved	2
Hen licenses approved	9	Dumps	3
Manicure-massages granted,	97	Beverages	5
Manicure-massages disapproved	1	Milk	161
Ice cream dealers approved	97	Pedlers	131

MEDICAL DIVISION.

Reported cases	986	Visits:	
Nonresidents	81	By V. D. investigator	175
Deaths investigated	34	By medical inspectors to cases of communicable disease	225

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	28	
Positive for release	14	
Negative for diagnosis	298	
Negative for release	43	
No growth cultures	37	
	—	420
DARK FIELD:		
Positive	3	
Negative	1	
	—	4
GONORRHEAL OPHTHALMIA:		
Positive	5	
Negative	45	
	—	50
GONORRHEAL URETHRITIS:		
Positive	165	
Negative	711	
	—	876
GENITO URINARY TUBERCOLUSIS:		
Positive	2	
Negative	21	
	—	23
MALARIA:		
Negative		6
MISCELLANEOUS EXAMINATIONS:		
Positive	4	
Negative	57	
Unclassified	178	
	—	239
TUBERCULOSIS:		
Positive	47	
Negative	192	
Unsatisfactory	9	
	—	248
TYPHOID:		
Positive	3	
Negative	58	
Atypical	5	
	—	66
SYPHILIS:		
Positive	98	
Negative	768	
Unsatisfactory	22	
Doubtful	9	
	—	897
Bacteriological milk examinations		718
Bacteriological ice cream examinations		81
Total		3,628

* Smears for Vincent's angina, 9; pleural fluid for organisms, 1; cake for organisms, 1; swabs for analysis, 1; blood culture, 2; material from abscess for T. B., 1; paratyphoids, 2; chicken for poison, 1; filet of sole for organisms, 1; urines for Eberthella typhi, 25; fæces for Eberthella typhi, 25; urines for analysis, 178; water from beaches for pollution, 16; water from swimming pools, 80; extra waters examined, 4.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during August, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours before pasteurization, a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.22	3.85	8,000
Antetomasso, Peter	12.43	4.03	8,000
Brandley, T. J. & P. J.	12.62	4.00	400
Casey, James D.	12.04	3.62	9,000
Cashin, J. F. & Co.	12.48	4.04	8,000
Cedar Hill Farm, Inc.*	12.58	4.15	700
Chapin, George L.	13.08	4.15	12,500
Clark, Levi	12.36	3.99	10,000
Corkery, John J.	12.56	3.98	27,000
Cosgrove, Martin S.	12.44	3.80	6,000
Daley, John	12.21	3.77	5,000
Dean, Louis W.*	13.54	4.63	8,000
Deerfoot Farm Company	12.46	3.94	10,000
Denehy, Timothy	12.24	3.78	10,000
Driscoll, William B., Company	12.46	3.93	7,000
Elm Spring Farm Company	12.21	3.79	35,000
Ferguson, Malcolm D.	12.13	3.65	47,000
Garfield, Mason*	14.70	5.55	16,000
Garvin, Charles	13.57	4.85	6,000
Giroux, J. E. & H. J.	12.35	3.87	30,000
Griffin, Joseph L.	12.39	3.86	9,000
Gushee, Chester W.	12.37	3.84	6,000

* All milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Hampden Creamery Company	12.20	3.50	38,000
Herlihy Brothers, Inc	12.31	3.85	28,000
Hickey, J. B	12.50	4.05	10,000
Holden, John E	12.20	3.83	7,000
Hood, H. P., & Sons, Inc	12.23	3.88	10,000
Hutchinson, Frank T	12.38	4.02	16,000
Jones, William T., Company	12.40	3.90	48,000
Kendall Brothers	12.33	3.70	15,000
Kingston Brothers	12.92	4.17	6,000
Knapp, George J	12.71	4.18	19,000
Lang Brothers	12.39	3.96	5,000
Larsson, Charles	12.06	3.58	56,000
Lyndonville Creamery Association	12.59	4.04	23,000
Lyons, William A	12.62	4.00	7,500
Manning, Harriet	11.94	3.60	13,000
McAdams, J. F., & Brothers, Inc	12.38	3.93	11,000
McKernan, John	12.43	3.90	20,000
New England Creamery Products Company *	12.66	4.18	12,000
Robinson, A. J	12.46	3.92	17,000
Schuster, Adam	12.39	3.85	25,000
Seven Oaks Dairy Company	12.34	3.89	11,000
Shick, Jacob	12.30	3.70	22,000
Somerset Farms Creamery Company	13.22	4.60	7,000
Sterling Farms Milk Company	12.15	3.84	11,000
Stone, H. L	12.11	3.60	10,000
Stuart, W. E., Company	12.44	4.08	8,000
Turner Centre System	12.25	3.87	12,000
United Farmers Co-operative Creamery Association, Inc	12.44	4.00	12,000
Walker-Gordon Laboratory Company *†	12.50	4.00	100
Weiler, E., & Son	12.27	3.96	22,000
Westwood Farms Milk Company	12.28	3.92	16,000
White Brothers	12.42	3.98	17,000
Whiting Milk Companies	12.28	3.76	23,000
Whittemore, Warner D	12.46	3.88	15,000
Williams, Edward C	12.64	4.33	9,000
Wiswall, Granville A	11.96	3.58	23,000
Woodland, Charles L	12.62	4.15	36,000

* All milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK — MARKET MILK — PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.11	3.85	8,000
M. Brown & Sons.....	Whiting Milk Companies...	12.31	3.82	20,000
The Cloverdale Company.....	Herlihy Brothers, Inc.....	12.21	3.75	24,000
Economy Grocery Stores Corporation, Inc.	Herlihy Brothers, Inc.....	12.07	3.65	35,000
First National Stores, Inc.....	Bellows Falls Co-operative Creamery Association, Inc.	12.69	4.02	12,000
Morgan Brothers Company....	New England Creamery Products Company.*	12.49	4.07	20,000
M. Winer Company.....	M. Winer Company.....	12.63	4.12	37,000

* Milk from tuberculin tested cows.

GRADE A MILK — PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.23	4.33	7,000
Cosgrove, Martin S.....	13.39	4.60	4,000
Dean, Louis W.*.....	13.61	4.55	6,000
Elm Spring Farm Company.....	12.95	4.30	34,000
Griffin, Joseph L.....	12.97	4.32	8,000
Gushee, Chester W.....	12.43	4.00	14,000
Herlihy Brothers, Inc.....	12.54	4.53	17,000
Hood, H. P., & Sons, Inc.*.....	12.64	4.21	3,000
Jones, William T., Company.....	13.36	4.40	11,000
Lyndonville Creamery Association.....	12.92	4.25	15,000
McAdams, J. F., & Brothers, Inc.....	12.88	4.40	5,000
New England Creamery Products Company*.....	13.06	4.35	17,000
Robinson, A. J.....	13.09	4.18	16,000
Seven Oaks Dairy Company.....	12.59	4.20	8,000
Sterling Farms Milk Company.....	12.32	3.98	11,000
Turner Centre System.....	12.56	4.15	7,000
Weiler, E., & Son.....	12.80	4.20	23,000
White Brothers.....	13.02	4.50	9,000
Whiting Milk Companies.....	12.58	4.28	9,000

* Milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested, and accredited.

Name of Dealer.	Kind of Certified Milk.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
Hood, H. P., & Sons, Inc.*	Own	13.32	4.30	2,500
Turner Centre System	Alta Crest	12.31	3.20	1,000
Walker-Gordon Laboratory Company *	Own	12.46	4.00	1,800
Whiting Milk Companies	Hampshire Hills	11.80	3.50	2,000

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
Hood, H. P., & Sons, Inc.*	Own	13.19	4.35	100

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	416
Milk from stores	742
Brought by citizens	4
Vinegar	55
Water	2
Silver polish	1
Ice cream	1
Frankfurts	1
Samples referred to Bacteriological Laboratory for examination:	
Milk	718
Ice cream	81
Court cases	19
Fines	$230

DAIRY DIVISION.

Total services	1,243	Total cattle inspected	13,708
Dairies inspected	878	Inspections of milk plants and licensed dealers	205
Scoring above 50*	578	Country creamery inspections	5
Scoring below	300	Sediment tests	112
With milk rooms	707	Investigation of high bacterial counts	4
Without milk rooms	171		
Inactive	39		

* Passable mark.

FOOD INSPECTION DIVISION.

August, 1930.

District inspections	4,106
Reinspections	368
Market inspections	1,624
Terminal inspections	*344
Vehicle inspections*	4,356
Stand inspections	1,502
Complaints	67
Notices to abate	225
Condemnations	14,267 pounds
Pedler Service:	
Numbers assigned	161
Licenses certified	131
Vehicles approved	930

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	2,584	Parts condemned	1,101
Calves inspected	2,712	Animals condemned	55
Swine inspected	2,573	Total of meat condemnations (pounds)	27,224
Sheep inspected	697		

SANITARY DIVISION.

Original inspections	2,822	Complaints investigated	813
Causes for action found	1,658	Nuisances abated	1,933
Reinspections	6,164	Routine inspections	2,236
Legal notices served	365		

WHOOPING COUGH — A PLEA FOR EARLIER DIAGNOSIS.

The United States Mortality Statistics, just published for 1925, shows that in the forty-two registration states about 7,000 deaths were due to pertussis. There were only a thousand more deaths from diphtheria; scarlet fever caused less than half as many deaths; and smallpox about one tenth as many. Unlike any other contagious diseases it is fatal only for infants and young children. Fifty-eight per cent of these 7,000 deaths were in infants less than twelve months old, and 83 per cent were in children under two years of age. Pertussis is, therefore, a serious and not infrequently fatal disease for infants and young children.— *Excerpt from the Illinois Medical Journal, Issue of July, 1930.*

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	17	75	65	140	16	9	25
East Boston	13	43	46	89	8	10	18
North End	13	17	85	102	4	7	11
West End	13	21	33	54	1	11	12
South Boston	13	45	44	89	11	14	25
Boston Dispensary	9	22	12	34	12	3	15
Brighton	7	15	7	22	3	—	3
Charlestown	8	14	26	40	3	2	5
Codman Square	12	59	47	106	11	12	23
Hyde Park	8	29	41	70	2	4	6
Arcadia Street	4	17	27	44	4	6	10
Roxbury	4	39	42	81	11	6	17
Totals	121	396	475	871	86	84	170

Districts.	Von Pirquet.	Wassermann.	Lamp.
South End	14	10	11
East Boston	11	5	—
North End	13	4	—
West End	9	3	—
South Boston	15	6	16
Boston Dispensary	3	5	—
Brighton	—	2	—
Charlestown	6	3	—
Codman square	19	9	—
Hyde Park	16	1	—
Arcadia Street	6	3	—
Roxbury	6	7	—
Totals	118	58	27

CARE OF THE BABY.

At the first sign of trouble, such as loose bowels, vomiting, loss of weight, unusual fussiness, or fever, call your physician. While waiting for him to come, all feedings should be stopped and the baby given only water. Do not try out home remedies or the advice of well-meaning neighbors. Many a baby has lost its life from just such delay.—*Excerpt Chicago's Health, July 22, 1930.*

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING AUGUST, 1930.

Classification.	Number.	Percentage.
After death	8	16.00
Seven days or less	3	6.00
Eight to fourteen days, inclusive	4	8.00
Fifteen to twenty-one days, inclusive	1	2.00
Twenty-two to thirty-one days, inclusive	4	8.00
Within First Month. (Total)	20	40.00
Within second month	6	12.00
Within third month	3	6.00
Within fourth month	1	2.00
Within fifth month	1	2.00
Within sixth month	3	6.00
Within seventh month	—	—
Within eighth month	1	2.00
Within ninth month	—	—
Within tenth month	1	2.00
Within eleventh month	1	2.00
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	37	74.00
Within second year	4	8.00
Within third year	4	8.00
More than three years	5	10.00
Grand totals	50	100.00

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF AUGUST, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	12	15	12	21
North Reading State Sanatorium	12	4	5	9
Lakeville State Sanatorium	4	1	4	7
Rutland State Sanatorium	—	1	1	4
Westfield State Sanatorium	—	—	2	2
Tewksbury	1	—	—	—
Totals	29	21	24	43

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	1	—	—	—
Plymouth County Sanatorium	—	—	—	—
Channing Home	—	—	—	—
United States Veterans' Hospital	11	—	8	—
Doctor Crane's Sanatorium	1	—	—	—
Totals	13	—	8	—

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, August, 1930.

Inspections	22
Physical examinations	1,413
Toxin anti-toxin	130
Vaccinations at units	1,331
Vaccination certificates	478
Day nursery visits	2
Conferences	10

Report of Child Health Conferences, August, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	264	4	268	36	—	36	4	67
31 Lincoln street, Brighton	146	46	192	15	8	23	4	48
Charlestown Municipal Building	421	34	455	39	3	42	8	57
Codman Square Library	403	103	506	57	7	64	7	72
Columbia Road Municipal Building	336	8	344	48	—	48	8	43
1 Arcadia street, Dorchester	284	11	295	54	—	54	8	37
East Boston Health Unit	400	33	433	72	6	78	8	54
Hyde Park Municipal Building	255	59	314	31	—	31	8	39
Curtis Hall, Jamaica Plain	241	31	272	39	1	40	4	68
41 North Margin street	183	66	249	31	7	38	8	31
Roslindale Municipal Building	266	54	320	35	2	37	4	80
Roxbury Health Unit	860	104	964	104	15	119	14	69
Children's Hospital	128	13	141	38	—	38	4	35
1049 Columbus avenue	416	159	575	50	2	52	8	72
133 Dorchester street, South Boston	413	82	495	69	10	79	8	62
Shawmut Avenue Municipal Building,	—	—	—	—	—	—	—	—
57 East Concord street	355	19	374	47	2	49	8	47
122 Tyler street	110	25	135	11	—	11	4	24
17 Blossom street	304	53	357	36	1	37	8	45
Totals	5,785	904	6,689	812	64	876	125	53

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, AUGUST, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	—	—	—	—	76
31 Lincoln street, Brighton	—	1	1	2	52
Charlestown Municipal Building	11	9	12	32	237
Codman Square Library	14	9	7	30	208
Columbia Road Municipal Building	4	4	3	11	173
1 Arcadia street, Dorchester	—	1	2	3	80
East Boston Health Unit	4	3	—	7	185
Hyde Park Municipal Building	2	3	4	9	142
Curtis Hall, Jamaica Plain	5	3	—	8	117
41 North Margin street	—	—	—	—	3
Roslindale Municipal Building	—	—	—	—	136
Roxbury Health Unit	9	5	9	23	221
Children's Hospital	1	—	—	1	11
1049 Columbus avenue	—	3	1	4	243
133 Dorchester street, South Boston	—	—	—	—	46
Shawmut Avenue Municipal Building	—	—	—	—	—
57 East Concord street	—	—	—	—	50
122 Tyler street	2	2	2	6	11
17 Blossom street	—	—	—	—	—
Totals	52	43	41	136	1,991

DENTAL ACTIVITIES AT HEALTH UNITS, AUGUST, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
Number of cases seen	369	194	169	403	364	250	216	1,965
Number of treatments:								
By dentists	631	215	187	418	277	418	348	2,494
By hygienists	96	—	32	42	6	—	—	176

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, AUGUST, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
BOSTON DISPENSARY:								
Calls by district physician	32	64	.....	.....	10	.....	29	135
BOSTON LYING-IN HOSPITAL:								
Number of prenatal clinics	5	4	4	4	1	4	.....	22
Attendance	51	66	33	24	23	33	.....	230
New cases	8	22	10	10	5	8	.....	63
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,503	2,356	1,432	2,293	528	2,142	1,187	11,441
Cases referred	123	.....	9	201	.....	.....	79	412
Diseases reported	10	.....	.....	.....	.....	.....	5	15
MOTHERS' CLUB:								
Number of meetings	4	4	.....	4	1	5	4	22
Attendance	30	130	.....	114	13	64	33	384
FAMILY WELFARE SOCIETY:								
Staff meetings	.....	1	.....	.....	.....	.....	.....	1
Attendance	.....	5	.....	.....	.....	.....	.....	5
CHILDREN'S HOSPITAL:								
Infantile clinics	4	.....	.....	4	1	2	.....	11
Attendance	21	.....	.....	40	18	11	.....	90
New cases	.....	.....	.....	1	.....	.....	.....	1
Playground attendance	2,170	450	3,630	3,520	3,380	.....	.....	13,150

THE VALUE OF FRESH AIR.

Fresh air in the winter time is healthful. Cold, exhilarating fresh air in the winter time is beneficial. Take adequate precautions to protect the body with warm, not uncomfortable clothing; wear good footwear. Spend a part of each day, if possible, in the open air, exercising sanely. If you cannot or do not like skating, tobogganing, snowshoeing and such sports, you can get just as much fresh air and just as much physical benefit by walking. Bear in mind that the best kind of air is fresh air, and that no matter how scientifically perfect artificial means of ventilation are within doors, the perfection of natural, fresh air cannot be excelled. When you are out doors practice deep, regular breathing. Sleep regularly, do not overeat. Do not hibernate because the weather is cold, or because snow is on the ground. Snow purifies the air surrounding it.

NURSING SERVICE.

REPORT FOR AUGUST, 1930.

Homes Visited			10,051
Child Hygiene:			
Visits to new cases		905	
Visits to old cases		6,152	
			7,057
Included are:			
Wrong addresses	87		
* Not seen	626		
Absent visits	713		
Communicable Diseases:			
Visits to new cases		402	
Visits to old cases		653	
			1,055
Included are:			
Wrong addresses	28		
* Not seen	62		
Absent visits	—		
	90		
Tuberculosis:			
Visits to new cases		187	
Visits to old cases		3,228	
			3,415
Included are:			
Wrong addresses	40		
* Not seen	290		
Absent visits	330		
Positive cases visits	1,577		
Contact case visits	1,153		
Suspect case visits	355		
	3,415		
Miscellaneous Visits:			
Patients accompanied to hospital		3	
Visits to day nurseries		1	
Visits to parochial schools		0	
Infant death investigations		0	
Maternal death investigations		16	
		—	20
Total number of visits			11,547
		Hrs.	Min
Hours in station by nurses		2,382	55
Hours at baby and pre-school conference		1,532	25
Hours at tuberculosis clinics		580	15
Total number of hours		4,495	35

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

"COLDS."

When collections of human beings are not supplied with a certain amount of fresh out-of-door air each day, they show an increased liability to develop colds.

VITAL STATISTICS, AUGUST, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING AUGUST, 1930, WITH COMPARATIVE FIGURES FOR AUGUST, 1930.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	759	766	—7	11.23	11.41	—.18
Nonresidents deducted	602	595	+7	8.90	8.86	+.04
By Age:						
Under one year	86	89	—3	1.27	1.33	—.06
One year to four years, inclusive	26	19	+7	.38	.28	+.10
Sixty years and over	318	318	—	4.70	4.74	—.04
Infant and Maternal Mortality:						
a. Total registered live births	1,286	1,389	—103	19.02	20.69	—1.67
b. Registered stillbirths	26	32	—6	.38	.48	—.10
Stillbirths per 1,000 live births and stillbirths	—	—	—	19.82	22.52	—2.70
c. Deaths of mothers from causes incident to childbirth	8	7	+1	.12	.10	+.02
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	6.10	4.93	+1.17
d. Deaths in first year per 1,000 live births	—	—	—	66.89	64.07	+2.80

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	31	56	—25	45.8	83.4	—37.6
Homicides	4	2	+2	5.9	3.0	+2.9
Suicides	12	12	—	17.7	17.9	—.02
Automobile accidents* (deaths in Boston)	10	14	—4	14.8	20.8	—6.0
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	5	14	—9	7.4	20.8	—13.4
Broncho-pneumonia	31	24	+7	45.8	35.7	+10.1
Cancer	116	104	+12	171.6	154.9	+16.7
Cirrhosis of the liver	7	5	+2	10.3	7.4	+2.9
Diabetes mellitus	19	20	—1	28.1	29.8	—1.7
Diarrhea and enteritis (under two years)	23	15	+8	34.0	22.3	+11.7
Degenerative Diseases, So Called:						
Arterio sclerosis	21	23	—2	31.4	34.3	—3.2
Cerebral hemorrhage	37	46	—9	54.7	68.5	—13.8
Heart disease	131	138	—7	193.8	205.6	—11.8
Nephritis, chronic	46	54	—8	68.0	80.4	—12.4

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, AUGUST, 1930.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 100,000 OF POPULATION.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
REPORTABLE DISEASES:						
Anterior poliomyelitis.....Cases.	48	6	+42	71.0	8.9	+62.1
Deaths.	5	1	+4	7.4	1.5	+5.9
Cerebrospinal meningitis.....Cases.	5	2	+3	7.4	3.0	+4.4
Deaths.	2	2	—	2.9	3.0	—.1
Diphtheria.....Cases.	41	49	—8	60.6	73.0	—12.4
Deaths.	1	4	—3	1.5	5.9	—4.4
Influenza.....Cases.	5	—	+5	7.4	—	+7.4
Deaths.	—	—	—	—	—	—
Measles.....Cases.	86	26	+60	127.2	38.7	+88.5
Deaths.	—	—	—	—	—	—
Pneumonia (lobar).....Cases.	29	27	+2	42.9	40.2	+2.7
Deaths.	13	5	+8	19.2	7.4	+11.8
Scarlet fever.....Cases.	46	58	—12	68.0	86.4	—18.4
Deaths.	1	—	+1	1.5	—	+1.5
Tuberculosis (pulmonary).....Cases.	111	135	—24	164.2	201.1	—36.9
Deaths.	50	37	+13	74.0	55.1	+18.9
Tuberculosis (other forms).....Cases.	21	39	—18	31.1	58.1	—27.0
Deaths.	7	7	—	10.3	10.4	—.1
Typhoid fever.....Cases.	9	13	—4	13.3	19.4	—6.1
Deaths.	—	3	—3	—	4.5	—4.5
Whooping cough.....Cases.	188	150	+38	278.1	223.5	+54.6
Deaths.	7	4	+3	10.3	5.9	+4.4

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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TYPHOID FEVER.

WHY TAKE CHANCES?

A few years ago there was a sudden widespread increase in the prevalence of typhoid fever in this country. It was seen to be largely due to the infection of people who had been traveling. For the most part, typhoid fever today in this country is seen in people who have been traveling. Typhoid fever today in this country is essentially a disease of people who have been away from their home. Without much difficulty, the cause of the above mentioned increase was found in the contamination of an oyster bed in Long Island Sound, the products from which were served in the best class of hotels and restaurants in this country. As a consequence, the victims of typhoid fever were comprised largely of those who could afford to pay for the best which this country has to offer.

In parts of this country where typhoid fever has become a rare disease, local outbreaks are not uncommon, as the result of a wholesale infection at a community supper or the banquet of some local organization. We have from time to time in this vicinity examples of this sort in which a large proportion of those who have attended such banquets have become infected. In a Boston hospital a few years ago a large proportion of the nurses contracted typhoid fever, evidently as the result of some unknown source of infection at a

single meal in the institution. In many, if not most, of such local outbreaks the source of infection is never discovered. Circumstances in some such instances have led to emphasis being placed upon chronic typhoid carriers as a public menace. If a broader view of the epidemiology of typhoid fever is taken, it would seem that the unrecognized "walking typhoid" case, the patient not yet sick enough to stay abed, has been a greater factor in the wholesale spread of typhoid fever than the "chronic carrier." About twenty years ago over three hundred cases of typhoid fever occurred in Jamaica Plain district by reason of the infection of local milk by such a case. As the result of different methods of handling and marketing milk, a similar outbreak could not occur today in exactly the same way. But within three years, Boston has had an outbreak of over thirty cases of typhoid fever due to the infection of milk. The milk was pasteurized. The proprietor of the dairy was extremely careful about the pasteurizing process. The record cards showed that the temperature had been effective. When the cases were discovered the proprietor of the dairy was unconscious with a fatal case of typhoid fever due to some unknown source of infection while away from home. The Boston Health Department, however, was able to learn that at a time consistent with the appearance of typhoid fever in his patrons, the proprietor, then a "walking typhoid case" had helped out in the bottling process by carrying some sterilized bottles to the filler or apparatus where they were filled with pasteurized milk. He had held and carried the bottles by thrusting his fingers down inside their necks. Had his mind not been clouded by his sickness, he doubtless would not have carried clean bottles in this way, but the incident serves to show that most elaborate precautions to protect us from disease germs may occasionally fail of their purpose.

The opportunities for infection with typhoid fever have been greatly reduced in this country in the last forty years, and while total cases are few in comparison with the past, there are, nevertheless, cases constantly occurring today in the best sanitated cities and towns. No one can regard himself as safe from exposure to infection anywhere when one leaves the modern safeguards which have been thrown around him all his life in a carefully protected home community and starts to travel. Even in certain parts of this country he encounters conditions which prevailed generally fifty years ago and exposes himself to infections with which his body has had no experience.

Two entirely different agencies have been operative in bringing about the reduction in mortality from certain communicable diseases that has been going on for the past eighty years.

Measures undertaken at public expense by governmental authority with a view to reducing disease by preventing dangerous contamination of the people's food and drink have been generally successful. Evidence of reduction in mortality from typhoid fever, dysentery, and other infections of the digestive tract following the introduction of a clean public water supply or the pasteurization of milk is unmistakeable. Even the suppression of flies in a community assures a reduction in this class of diseases.

Claims of success similarly undertaken by public authority with a view to preventing infection with so-called contact diseases cannot stand critical analysis.

In the decrease in the death rate from diphtheria, scarlet fever, measles and tuberculosis, which has been in progress in this state for eighty years, at least, there is to be seen the operation of a natural process of a biological principle, which is often overlooked. The spread of the diseases just named may be controlled among collections of human beings by a process of quarantining, but it is essential to success that cases be detected and effectually isolated in their incipiency before they show symptoms which are ordinarily recognized. Like most, if not all contagious diaseases, those above named are contagious before they can be positively diagnosed. The prevention of opportunities for contact infection in an ordinary urban population calls for the maintenance of a surveillance over individuals that is impracticable. The reporting of contagious diseases by physicians to health officials gives the latter opportunity to keep some of the contacts under observation, but it is inconceivable that deaths from scarlet fever in Boston have been reduced from 500 fifty years ago to 25 in 1929 by isolating a certain proportion of the cases which actually occur after they have been in a contagious stage for five or six days, or that the mortality from measles has decreased from over 150 about fifty years ago, to 7 in 1929, by quarantining a certain proportion of the cases which actually occur, usually after they have been in their most contagious stage for several days and often, in the past, after they had really ceased to be contagious. Diphtheria antitoxin has saved countless lives, but when it came into common use about 1894, diphtheria was a much less serious disease than it was twenty years before. The supposed success of conventional methods applied to the control of common contagious diseases is due to the immunity of the contacts. The Schick test and the Dick test tell the story. The chief factor in the reduction of mortality from diphtheria and scarlet fever has been the tendency in places where these diseases are endemic of people to develop an immunity and most often without recognized symptoms of infection. In 1850 the annual death rate from pul-

monary tuberculosis in Boston was more than 400 per 100,000. In 1929 the rate was 70.8. With 1 per cent of the population spitting tubercle bacilli about, most of them unknowingly, and with nearly 50 per cent of the fatal cases unreported to health officials until within a month of death, it is foolish to talk about the efficacy of measures intended to prevent the spread of tuberculosis. The downward course of the death rate from tuberculosis in this country was well established before the tuberculosis bacillus was discovered. The explanation is to be found in the healed tuberculous lesions in the lungs of persons who have died from other causes. As successive generations have encountered increasing opportunities for infection, its results have tended more and more to be beneficent, producing immunity rather than active disease.

Nature's method of preserving life is by building up defenses against adverse influences. Some of our chestnut trees have withstood the chestnut blight and these are now giving rise to chestnut groves which are immune to its effects. The grape culture of France has been saved by the importation of American vines which are able to withstand the phylloxera.

Whether plants, animals or man be concerned, freedom from hostile attacks inevitably results in impaired defenses against them. The success in our efforts to prevent the contamination of our food and drink is resulting in the production of a breed of people as vulnerable to typhoid fever and other infections of the digestive tract as the Eskimo is to tuberculosis or the South Sea Islander to measles. Typhoid fever was a less serious military problem in the Civil War when its cause was unknown than in the Spanish War when its manner of spread was well understood. The small Massachusetts farmer is persuaded to kill his "reactors," most of which would establish an immunity to tuberculosis just as human beings do. He follows advice to buy new animals from "accredited herds." After he learns that the prevention of opportunities for tuberculous infection on a small farm are impracticable and that animals from accredited herds are more prone to develop rapidly fatal disease than his old animals were he gives up trying to produce milk. That is why Massachusetts dairies are so rapidly decreasing in number.

It does not necessarily follow that the wisest course in the long run would be to let nature establish its own protection against communicable diseases. There are other facts to be considered. Resistance to infection is not entirely specific. Although they may never have encountered the typhoid bacilli before, all persons who take the bacilli into their stomachs at a church supper do not inevitably develop typhoid fever. Whatever may tend to promote the physical

well-being of an individual assures a certain degree of protection against infection and tends to make the consequences of infection less serious if it occurs. Disease germs lose their virulence by passing them through an animal resistant to their action and increase in virulence by cultivation in vulnerable animals. Unless the economic conditions of a community be good, public health promotion projects will prove as disappointing as they have been in Porto Rico.

Disease prevention efforts may not be useless even though they do not fulfill their purpose. A better water supply for a community will be followed by a decrease in mortality from diseases unrelated to the digestive tract. Even illogical procedures intended to control scarlet fever and measles in a community may perhaps tend to decrease mortality by raising the age at which infection occurs. It may be well not to scrap time-honored procedures for combating disease until the evidence be clear that benefits are not justifying the cost, but there should be a clear appreciation of the fact that the best prospect of decreasing untimely deaths in the future lies in the development of ways of rendering disease germs harmless rather than in schemes for avoiding them.

Progress in the development of methods of establishing artificial immunity against disease has been slow, but the utilization of procedures of proved efficacy for this purpose has been slower. The World War demonstrated the practicability of immunizing against typhoid fever and the harmlessness of the procedure, yet comparatively few people in civil life avail themselves of the protection it affords. An opportunity for typhoid infection is likely to be met by the highly susceptible resident of a favored environment whenever he leaves home. Such opportunities are multiplied when he travels abroad, yet even those prospective travelers who regard it as a proper precaution to vaccinate against smallpox before starting on a voyage around the world will neglect vaccination against typhoid. The probability of contracting typhoid fever is greater and the attack of typhoid is certainly a more serious matter than the type of smallpox usually encountered today.

Even for the purpose of public education in artificial immunization it would seem that vaccination against typhoid fever might profitably be stressed more than it is. As in other modern health work, we must look for help to the different public health educators to do this and not to a policeman.

REPORT OF ANIMAL RESCUE LEAGUE.

The Animal Rescue League reports that the number of dogs from within the limits of Boston destroyed by them over a period of time, from July 1, 1929, to July 1, 1930, was 1,358.

SETTLEMENTS AS RELATED TO THE HEALTH DEPARTMENT.

Civilization has now reached the stage where humanity has decreed it to be the duty of the state to care for the sick and infirm.

Not so many years ago this function was attended to by either public or private charity. Such, however, is no longer the case. We are beginning to realize the truth, that we are our brother's keeper, and it is now considered no longer a charity, but rather a duty that the social organization owes to itself to protect its weaker members, and thus to strengthen itself, because it is self-evident that a chain is only as strong as its weakest link.

That this function of the state may not be abused, and that the expense attendant on this duty may be equitably borne, it has been necessary to pass much legislation to equalize the financial burden of caring for the weaker members of society.

Of course, if the afflicted persons are able to pay, they must do so, if not the expense must be borne by the state, or city, or town of residence.

The determination of the liability of the municipal government for the support of those not able to support themselves, has given rise to the settlement laws.

A settlement is a legal residence enabling a person to claim maintenance, and imposing upon the state or city the duty of meeting the expense incurred by it, in caring for its sick or infirm.

For instance, if it becomes necessary to furnish medical aid to a person in Boston who is a resident of another town, the town of settlement must bear the expense incurred by this city in caring for the afflicted person.

Not infrequently the town of residence tries to avoid paying and this has led to a wide field of legislation to determine the right of the person to whom aid was furnished, and to determine who shall pay for that aid.

Under the early English laws before this function of the state was recognized, and where a person receiving state aid was branded as a pauper, this legislation was treated under the Poor Laws. Under Richard II and under Henry the VII. the duty was imposed upon parishes to care for the sick. Under Charles II and James II more legislation was passed in an attempt to determine what constituted a settlement.

In this country, as early as 1639, we find statutes pertaining to settled persons and unsettled persons. Settled persons were those who had settled in a town, and were entitled to a settlement. Unsettled persons were those who had no settlement. In 1659 a law was passed that if a person could not prove a settlement, the county

was liable for his care. In 1767 a statute was passed that persons without settlements should be supported by the province. In this commonwealth legislation began in 1793, in regard to the poor, the sick, and infirm, and the original statute has been amended many times, down to today.

Since the founding of our government, the functions of the state have increased and expanded in every direction. Not the least of the state functions is the care of the health of its members. In every state in the Union, and in every city, town and hamlet there is a department of health, the special duty of which is to protect the health and lives of our citizens. A large proportion of the taxpayer's money throughout the country is spent through this department.

In all matters pertaining to communicable diseases the state's right is absolute and unconditional. It assumes the right and imposes the duty on the individual and on itself to regulate the conduct of all things pertaining to the public health. Assuming the right, or rather the duty, to protect the health of all its members, it may furnish such treatment as it sees fit, and may direct payment therefor, either from the individual or from the state funds.

Many persons are unable to meet the expense of such treatment, and in these cases the Settlement Law is appealed to, to determine who shall bear the expense.

The Health Department is concerned with Settlement Laws only as regards communicable diseases. In order that this law may be intelligently administered, old methods have been abandoned, and newer and more efficient means of handling this situation are now in vogue.

The first step, of course, is to render aid to the afflicted and safeguard the health of the general public. This is done through our hospitals and medical service.

If the case is a noncommunicable disease, and the patient unable to pay, the matter is referred to the Department of Public Welfare.

If, however, the case is a communicable disease, payment of the bill for services rendered comes within the province of the Health Department, which must approve the bill before payment.

Such cases as tuberculosis, dog bites, eye trouble, diphtheria, scarlet and typhoid fevers, and the like, require immediate attention to protect the public, and the patient is entitled to, and receives medical aid from the city, regardless of who or how it shall be paid. There is an exception to this, however, where a patient not requiring

immediate aid is to be sent to a sanatorium, in which case the settlement is generally determined before the patient is assigned to a hospital.

When the needs of the patients are taken care of, the question of liability for payment then arises, and this is where the Settlement Law applies.

Immediately after notice is received by the Health Department that a patient is being cared for, and that a claim will be made against the city for reimbursement, an investigation of this case is begun. The history of the patient is taken, checked, verified, or disapproved, and the bill is then approved or disapproved by the commissioner, and if approved, is presented to the city for payment.

If the bill is disapproved, because the evidence fails to establish a settlement, or shows a settlement elsewhere, the bill is then presented to the proper city or town. If no town of settlement can be found, the matter is then presented to the state.

Often the question of determining a settlement is an extremely technical one, in spite of the many statutes covering the subject. In those cases where no agreement can be reached it is referred to the Law Department and decided by the court.

A large portion of the time is consumed in investigating claims from out of town for medical aid rendered to persons claiming a settlement in Boston, and each one of these cases must be properly investigated before the claim can be allowed.

In Boston there were 1,060 settlement cases handled by the Health Department during the first eight months of this year; 656 of these cases were claims against the city; 304 cases were bills rendered to the Health Department of the city for the care of persons who claimed a settlement in Boston; 104 notices were received from out-of-town Boards of Health that they would expect Boston to pay for the help about to be rendered; 72 notices were received from the Massachusetts Eye and Ear Infirmary requesting reimbursement for medical service; 332 cases of tuberculosis were investigated to discover the settlement of patients in sanatoriums. Thus far this year the department has denied 122 cases, acknowledged settlements in 184 cases, and admitted probable settlements of 332 cases.

Up to August 31, 1930, the total sum expended for the care of persons sick with communicable diseases was $119,465.12. Before any part of this sum was paid each case must have been investigated, the settlement determined, and the matter approved by the Health Commissioner.

This branch of the Health Department investigates and approves or denies claims amounting to approximately a quarter of a million dollars a year.

DEDICATION OF SIXTH GEORGE ROBERT WHITE HEALTH UNIT AT WEST END.

The sixth health unit, erected at Blossom and Parkman streets, made possible by the George Robert White Fund, was formally dedicated on September 15, in the presence of the mothers from the neighborhood, His Worship, Reuben Salter, Mayor of Boston, England, the special guest of Mayor Curley, and members of the medical and social spheres of the city government.

Gen. Edward L. Logan, manager of the White Fund, presided. The invocation was by Rabbi Samual Abrams of the Temple Ohabei Shalom. Lewis B. Abbott, representing the architects, presented the keys to Henry I. Harriman, president of the Chamber of Commerce.

Dr. Francis X. Mahoney, Health Commissioner, outlined the history of health unit movement, recalling the first unit, near the location of the new building. Doctor Mahoney said that much that had been so successfully accomplished could not have been achieved if it were not for the wise and able assistance of the present Mayor of Boston.

Dr. Charles F. Willinsky, Deputy Commissioner of the Division of Child Hygiene and Director of Health Units, paid tribute to the benefactor and founders, to Mayor Curley for his inspiration and continued interest and to the late George E. Phelan, former head of the fund, and the present manager of the fund, Gen. Edward L. Logan, for their cooperation in raising the level of public health city where six health units are functioning through the foresight and generosity of the late George Robert White.

Councilor William G. Lynch, president of the City Council, and Councilor John I. Fitzgerald, also addressed the gathering.

Lee K. Frankel, Ph. D., vice president of the Metropolitan Life Insurance Company, made the dedicatory address. He stressed the importance of preventive work in public health. He said in part, "No one can but be impressed with the results of such educational and preventive work as being waged by health departments and privately conducted social agencies, and the result is that the expectation of life has been doubled."

Mayor Curley traced interestingly the history and success of the health unit movement in Boston, the value of good health accomplishments of the units, and paid tribute to George Robert White.

The exercises were concluded with benediction by the Rev. Charles Heaney, pastor of St. Joseph's Church, West End.

NEW WEST END HEALTH UNIT.

IS YOUR CHILD WELL?

Schools have reopened and Boston's great army of children have again taken up their routine of studies and systematic exercise. It is hoped that the parents of these children have taken advantage of the long vacation and that each and every child is ready and fit to fight the battle of health for the coming school term. Fresh air and sunshine, good nourishing food, with opportunities to bathe, have provided many facilities where the weak or sickly child can start the new year on a sound basis. This is not only fair to the little child itself, but is a square deal to the other children, teachers and masters who are in contact with the child daily. Boston provides medical care for the children in its schools, and this year should be a banner year in the health of the school child if every parent has done his duty by his child. Good health is a safe and sound and profitable investment, and when we pause and think of the discomforts and pain, the suffering and expense that come on parents in later years because the child has been neglected in its youth, we will realize the truth of the statement, that good health is a good investment.

SUMMARY OF WORK, SEPTEMBER, 1930.

ADMINISTRATION DIVISION.

Prosecutions	2	Personnel:	
Proposal accepted	1	Permanent appointment	1
Legal notices	120	Temporary appointment extended	1
Forcible removal	1	Hearing	1
Settlements:		Leave of absence	1
Total cases	201		
Notices	152		
Bills	49		

LICENSES, PERMITS, ISSUED, DISAPPROVED, ETC.

Burial permits	831	Ice cream manufacturer disapproved	4
Denatured alcohol approved	18	Beverage permits approved	3
Hen licenses approved	22	Garbage permits approved	3
Massage-manicure approved	63	Milk licenses approved	103
Massage-manicure revoked	1	Pedlers' licenses approved	61
Massage-manicure disapproved,	4	Lying-In Hospital	1
Ice cream dealers approved	5	Undertakers licensed	2

MEDICAL DIVISION.

Reported cases	871	Visits:	
Nonresidents	75	By V. D. investigator	231
Deaths investigated	20	By medical inspectors to cases of communicable disease	194

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	19	
Positive for release	3	
Negative for diagnosis	208	
Negative for release	19	
No growth cultures	44	
	—	293
DARK FIELD:		
Positive	3	
Negative	1	
Unsatisfactory	1	
	—	5
GONORRHEAL OPHTHALMIA:		
Positive	3	
Negative	47	
	—	50
GONORRHEAL URETHRITIS:		
Positive	157	
Negative	769	
	—	926
GENITO URINARY TUBERCULOSIS:		
Negative	18	
Unsatisfactory	3	
	—	21
MALARIA:		
Positive	1	
Negative	6	
	—	7
MISCELLANEOUS EXAMINATIONS:		
Positive	3	
Negative	46	
Unclassified	153	
	—	202
TUBERCULOSIS:		
Positive	38	
Negative	211	
Unsatisfactory	7	
	—	256
TYPHOID:		
Positive	5	
Negative	24	
Atypical	11	
Unsatisfactory	1	
	—	41
SYPHILIS:		
Positive	105	
Negative	956	
Unsatisfactory	5	
Doubtful	6	
	—	1,972
Bacteriological milk examinations		776
Bacteriological ice cream examinations		81
Total		3,730
Swimming pools examined		64
Extra waters examined		5

Smears for Vincent's angina, 7; cultures for virulence, 1; smear from gland for tuberculosis, 1; cooked ham for organisms, 1; lemon pie for organisms, 1; water for organisms, 3; unit urines, 150; urine for eberthella typhi, 19; feces for eberthella typhi, 19.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during September, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours before pasteurization; a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization, and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.39	3.80	44,000
Antetomasso, Peter	12.54	3.93	11,000
Brandley, T. J. & P. J.	12.80	3.93	8,000
Buxton, William E.*	13.60	4.40	19,000
Casey, James D	12.19	3.72	14,000
Cashin, J. F., & Co	12.54	3.89	17,000
Cedar Hill Farm, Inc.*	12.88	4.15	7,000
Chapin, George L.	13.15	4.20	13,000
Clark, Levi	12.28	3.85	12,000
Corkery, John J.	12.68	3.93	13,000
Cosgrove, Martin S.	12.67	3.95	16,000
Daley, John	12.18	3.77	500
Dean, Louis W.*	13.13	4.38	12,000
Deerfoot Farm Company	12.72	4.13	14,000
Denehy, Timothy	12.40	3.73	11,000
Driscoll, William B., Company	12.54	3.93	15,000
Elm Spring Farm Company	12.26	3.78	35,000
Ferguson, Malcolm D.	12.63	3.90	46,000
Garfield, Mason*	14.58	5.55	9,000
Garvin, Charles	13.75	5.05	10,000
Giroux, J. E. & H. J.	12.70	3.93	11,000
Griffin, Joseph L.	12.53	3.86	13,000
Gushee, Chester W.	12.74	3.93	33,000

* All milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Hampden Creamery Company	12.44	3.64	45,000
Herlihy Brothers, Inc.	12.37	3.77	29,000
Hickey, J. B.	12.31	3.89	13,000
Holden, John E.	12.26	3.74	9,000
Hood, H. P., & Sons, Inc.	12.44	3.84	15,000
Hutchinson, Frank T.	12.56	4.10	19,000
Jones, William T., Company	12.57	4.00	48,000
Kendall Brothers	12.60	3.89	15,000
Kingston Brothers	12.69	3.93	13,000
Knapp, George J.	12.42	3.75	34,000
Lang Brothers	12.35	3.88	14,000
Larsson, Charles	12.44	3.70	31,000
Lyndonville Creamery Association	12.78	4.07	29,000
Lyons, William A.	12.88	4.18	14,000
Manning, Harriet	12.11	3.73	41,000
McAdams, J. F., & Brothers, Inc.	12.66	3.96	11,000
McKernan, John	12.63	3.97	12,000
New England Creamery Products Company *	12.76	4.09	21,000
Prescott, J. B., Company	12.27	3.87	45,000
Robinson, A. J.	12.59	3.84	34,000
Schuster, Adam	12.73	4.00	34,000
Seven Oaks Dairy Company	12.33	3.85	15,000
Shick, Jacob	12.34	3.70	14,000
Somerset Farms Creamery Company	12.98	4.30	15,000
Sterling Farms Milk Company	12.48	3.79	20,000
Stone, H. L.	12.81	3.87	17,000
Stuart, W. E., Company	12.66	4.05	19,000
Turner Centre System	12.37	3.84	15,000
United Farmers Co-operative Creamery Association, Inc.	12.58	4.08	10,000
Walker-Gordon Laboratory Company *†	12.78	4.20	100
Weiler, E., & Sons	12.54	3.99	10,000
Westwood Farm Milk Company	12.36	3.85	29,000
White Brothers	12.55	3.95	27,000
Whiting Milk Companies	12.39	3.75	13,000
Whittemore, W. D.	12.77	3.97	31,000
Williams, Edward C.	12.82	4.43	13,000
Weswall, Granville A.	12.19	3.70	11,000
Woodland, Charles L.	12.87	4.20	21,000

* All milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK—MARKET MILK—PASTEURIZED.

Name of Dealer.	Supplied by	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc.	12.54	3.88	23,000
M. Brown & Sons	Whiting Milk Companies	12.38	3.83	12,000
The Cloverdale Company	Herlihy Brothers, Inc.	12.32	3.75	15,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.	12.38	3.77	24,000
First National Stores, Inc.	Bellows Falls Co-operative Creamery Association.	12.80	4.10	14,000
Morgan Brothers Company	New England Creamery Products Company.*	12.65	4.02	13,000
M. Winer Company	M. Winer Company	12.63	4.07	32,000

* All milk from tuberculin tested cows.

GRADE A MILK—PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Antetomasso, Peter	12.64	4.03	7,000
Cashin, J. F., & Co	13.29	4.63	17,000
Cosgrove, Martin S	13.07	4.15	20,000
Dean, Louis W.*	13.82	4.55	1,800
Elm Spring Farm Company	13.05	4.28	18,000
Griffin, Joseph L.	12.90	4.23	8,000
Gushee, Chester W	12.71	4.08	18,000
Herlihy Brothers, Inc.	12.49	4.30	9,000
Hood, H. P., & Sons, Inc.*	12.74	4.29	6,000
Jones, William T., Company	13.03	4.20	37,000
Lyndonville Creamery Association	13.32	4.40	51,000
McAdams, J. F., & Brothers, Inc.	12.78	4.25	8,000
New England Creamery Products Company *	13.14	4.25	5,000
Robinson, A. J.	13.09	4.33	8,000
Seven Oaks Dairy Company	12.78	4.20	10,000
Sterling Farm Milk Company	12.64	4.08	15,000
Turner Centre System	12.63	4.37	7,000
Weiler, E., & Sons	12.80	4.13	10,000
White Brothers	13.24	4.50	21,000
Whiting Milk Companies	12.66	4.10	8,000

* All milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested and accredited.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P., & Sons, Inc.*	Own	13.36	4.37	1,600
Turner Centre System	Alta Crest	12.88	3.90	500
Walker-Gordon Laboratory Company.*	Own	12.77	4.15	3,200
Whiting Milk Companies	Hampshire Hills	13.55	4.30	1,400

* All cows tested and reported free from infectious abortion

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for certified milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P., & Sons, Inc.*	Own	13.39	4.33	175

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	410
Milk from stores	789
Vinegar	216
Sherbet	6
Ice cream	13
Miscellaneous	2
Samples referred to Bacteriological Laboratory for examination:	
Milk	776
Ice cream	81
Court cases	2
Fines	$20

DAIRY DIVISION.

Total services	1,178	Total cattle inspected	13,660
Dairies inspected	890	Inspections of milk plants and licensed dealers	150
Scoring above 50 *	711	Country creamery inspections	7
Scoring below	179	Sediment tests	72
With milk rooms	773	Investigation of high bacterial counts	5
Without milk rooms	117		
Inactive	8		

* Passable mark.

FOOD INSPECTION DIVISION.

September, 1930.

District inspections	3,240
Reinspections	441
Market inspections	1,147
Terminal inspections	550
Vehicle inspections*	3,840
Stand inspections	913
Complaints	46
Notices to abate	249
Condemnations	6,186 pounds
Pedler Service:	
Numbers assigned	71
Licenses certified	61
Vehicles approved	784

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	3,176	Parts condemned	931
Calves inspected	3,882	Animals condemned	51
Swine inspected	2,965	Total of meat condemnations (pounds)	20,176
Sheep inspected	407		

SANITARY DIVISION.

Original inspections	2,689	Complaints investigated	702
Causes for action found	1,774	Nuisances abated	1,565
Reinspections	3,574	Routine inspections	2,241
Legal notices served	103		

PROTECT YOUR CHILDREN AGAINST DIPHTHERIA.

Delay is Dangerous — The Protective Treatment is Harmless.

If any child in your family, no matter what his age may be, is not protected, have it receive this treatment at once. Over 150,000 treatments have been given in Boston without any harmful result.

Bring your children to your family physician for diphtheria prevention treatment or to the stations of the Boston Health Department.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	15	115	125	240	23	24	47
East Boston	14	57	114	171	5	17	22
North End	11	22	47	69	—	3	3
West End	11	28	44	72	4	6	10
South Boston	11	54	65	119	11	14	25
Boston Dispensary	7	26	10	36	12	1	13
Brighton	8	13	14	27	3	1	4
Charlestown	9	41	53	94	3	13	16
Codman Square	12	62	66	128	6	7	13
Hyde Park	7	31	23	54	2	1	3
Arcadia Street	3	14	31	45	2	3	5
Roxbury	5	61	94	155	9	21	30
Totals	113	524	686	1,210	80	111	191

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	36	21	47	123
East Boston	24	6	—	50
North End	3	0	—	30
West End	6	1	—	—
South Boston	14	9	55	103
Boston Dispensary	7	8	—	—
Brighton	1	2	—	—
Charlestown	12	3	—	27
Codman Square	15	7	—	—
Hyde Park	3	2	—	—
Arcadia Street	10	1	—	—
Roxbury	18	11	—	47
Totals	149	71	102	380

CHICKEN POX.

Chicken pox derives its chief importance to the public from the likelihood of mistaking cases of mild smallpox for chicken pox. This is the way smallpox epidemics usually get their start. It is frequently very difficult to tell a beginning smallpox case from a beginning chicken pox case or *vice versa*, and it is sometimes absolutely impossible to tell which disease a patient has without awaiting development for one, two or perhaps three or more days.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING SEPTEMBER, 1930.

Classification.	Number.	Percentage.
After death	12	33.33
Seven days or less	3	8.33
Eight to fourteen days, inclusive	2	5.56
Fifteen to twenty-one days, inclusive	—	—
Twenty-two to thirty-one days, inclusive	—	—
Within First Month. (Total)	17	47.22
Within second month	3	8.33
Within third month	2	5.56
Within fourth month	3	8.33
Within fifth month	3	8.33
Within sixth month	1	2.78
Within seventh month	1	2.78
Within eighth month	—	—
Within ninth month	—	—
Within tenth month	—	—
Within eleventh month	1	2.78
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	31	86.11
Within second year	2	5.56
Within third year	1	2.78
More than three years	2	5.56
Grand totals	36	100.01

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF SEPTEMBER, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	20	10	15	8
North Reading State Sanatorium	—	6	3	5
Lakeville State Sanatorium	2	—	3	—
Rutland State Sanatorium	1	1	—	3
Westfield State Sanatorium	—	—	1	3
Tewksbury	1	4	—	—
Totals	24	21	22	19

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	—	—	1	—
Plymouth County Sanatorium	—	—	—	—
Channing Home	—	—	—	—
United States Veterans' Hospital	6	—	—	—
Doctor Crane's Sanatorium	—	—	—	—
Totals	6	—	1	—

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, September, 1930.

Inspections	239
Physical examinations	207
Toxin-antitoxin	163
Vaccinations at units	2,285
Vaccination certificates	986
Day nursery visit	1
Conferences	10

Report of Child Health Conferences, September, 1930.

Station.	Number of Babies.	Number of Preschool (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	193	17	210	42	3	45	1	70
31 Lincoln street, Brighton	121	114	235	16	1	17	1	59
Charlestown Municipal Building	437	31	468	41	2	43	7	67
Codman Square Library	489	49	538	96	6	102	7	77
Columbia Road Municipal Building	340	14	354	61	2	63	7	51
1 Arcadia street, Dorchester	356	23	379	53	3	56	9	42
East Boston Health Unit	502	31	533	69	10	79	8	67
Hyde Park Municipal Building	289	28	317	27	1	28	9	35
Curtis Hall, Jamaica Plain	209	29	238	29	1	30	3	79
41 North Margin street	288	181	469	41	7	48	9	50
Roslindale Municipal Building	324	55	379	47	3	50	4	95
Roxbury Health Unit	734	34	768	78	2	80	11	70
Children's Hospital	236	39	275	29	3	32	5	55
1049 Columbus avenue	441	43	484	69	6	75	9	54
133 Dorchester street, South Boston	429	100	529	67	17	84	9	59
Shawmut Avenue Municipal Building,	—	—	—	—	—	—	—	—
57 East Concord street	397	27	424	51	—	51	7	61
122 Tyler street	132	46	178	23	16	39	4	45
17 Blossom street	365	60	425	34	1	35	8	8
Totals	6,282	921	7,203	873	84	957	118	58

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, September, 1930.

Station.	Toxin-Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	—	—	—	—	95
31 Lincoln street, Brighton	6	3	2	11	56
Charlestown Municipal Building	6	6	7	19	254
Codman Square Library	16	14	9	39	213
Columbia Road Municipal Building	3	7	2	12	175
1 Arcadia street, Dorchester	4	1	1	6	256
East Boston Health Unit	—	—	—	—	—
Hyde Park Municipal Building	1	1	2	4	202
Curtis Hall, Jamaica Plain	2	1	3	6	71
41 North Margin street	6	2	3	11	85
Roslindale Municipal Building	7	3	4	14	127
Roxbury Health Unit	6	6	9	21	235
Children's Hospital	8	7	2	17	46
1049 Columbus avenue	5	4	1	10	284
133 Dorchester street, South Boston	—	—	—	—	27
Shawmut Avenue Municipal Building	—	—	—	—	—
57 East Concord street	3	1	—	4	57
122 Tyler street	2	—	—	2	50
17 Blossom street	10	2	2	14	10
Totals	85	58	47	190	243

DENTAL ACTIVITIES AT HEALTH UNITS, SEPTEMBER, 1930.

	Charlestown.	East Boston.	North End.	South Boston.	South End.	Roxbury.	West End.	Totals.
Number of cases seen	297	220	177	420	531	210	267	2,122
Number of treatments:								
By dentists	568	443	177	478	568	319	339	2,892
By hygienists	44	27	25	30	41	3	49	219

Referred by public schools; parochial schools; roof classes.

CO-OPERATIVE HEALTH UNIT REPORT, SEPTEMBER, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
BOSTON DISPENSARY:								
Calls by district physician	38	.....	63	.....	42	.....	22	165
BOSTON LYING-IN HOSPITAL:								
Number of prenatal clinics	4	4	5	4	4	4	.....	25
Attendance	31	68	45	21	73	19	.....	257
New cases	2	19	11	3	13	6	.....	54
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,529	2,086	1,353	2,224	2,208	2,276	1,205	12,881
Cases referred	137	.....	1	188	.....	.....	83	409
Diseases reported	9	.....	.....	.....	.....	.....	.....	9
Number of Mothers' Club meetings	4	3	.....	4	4	4	5	24
Attendance	44	40	.....	74	51	24	66	299
FAMILY WELFARE SOCIETY:								
Number of staff meetings	2	.....	.....	.....	.....	.....	.....	2
Attendance	11	.....	.....	.....	.....	.....	.....	11
CHILDREN'S HOSPITAL:								
Infantile clinics	3	4	.....	2	4	4	.....	17
Attendance	24	16	.....	18	53	27	.....	138
STATE DEPARTMENT OF MENTAL HYGIENE:								
Habit-forming clinics	.....	.....	.....	.....	.....	.....	3	3
Attendance	.....	.....	.....	.....	.....	.....	29	29
New cases	.....	.....	.....	.....	.....	.....	5	5
HEALTH DEPARTMENT:								
Refraction Service:								
Number of diagnosis	.....	.....	98	.....	.....	.....	.....	98
New glasses recommended	.....	.....	32	.....	.....	.....	.....	27
New cases	.....	.....	27	.....	.....	.....	.....	32
Playground attendance	575	75	750	1,061	625	.....	.....	3,086

CARE IN LIVING.

Other things being equal, it is the man who leads the well-balanced life who lasts the longest, whose work to the end is uniformly the best. He who maintains a standard of simple, healthy diet in moderation, who offsets physical work with mental recreation, who is as honest with his own body as with his business, can enjoy in peace of mind the fruits of his labors.

NURSING SERVICE.

REPORT FOR SEPTEMBER, 1930.

Homes Visited			13,108
Child Hygiene:			
Visits to new cases		1,378	
Visits to old cases		8,540	
			9,918
Included are:			
Wrong addresses	115		
Not seen *	907		
Absent visits	1,022		
Communicable Diseases:			
Visits to new cases		312	
Visits to old cases		542	
			854
Included are:			
Wrong addresses	20		
Not seen *	46		
Absent visits	66		
Tuberculosis:			
Visits to new cases		136	
Visits to old cases		4,361	
			4,497
Included are:			
Wrong addresses	35		
Not seen *	428		
Absent visits	463		
Positive case visits	2,101		
Contact case visits	1,502		
Suspect case visits	431		
	4,497		
Miscellaneous Visits:			
Maternal death investigations		13	
Patients accompanied to hospital		23	
Visits to day nurseries		9	
Visits to parochial schools		244	
			289
Total number of visits			15,558
		Hrs.	Min.
Hours in station by nurses		3,143	25
Hours at baby and pre-school conferences		1,788	25
Hours at tuberculosis clinics		625	20
Total number of hours		5,557	10

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

"There cannot be health without normal nutrition." — *Holt.*

VITAL STATISTICS, SEPTEMBER, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING AUGUST, 1930, WITH COMPARATIVE FIGURES FOR SEPTEMBER, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	748	745	+3	11.06	11.10	—.04
Nonresidents deducted	589	583	+6	8.71	8.69	+.02
By Age:						
Under one year	86	86	—	1.27	1.28	—.01
One year to four years, inclusive	25	22	+3	.37	.33	+.04
Sixty years and over	314	301	+13	4.64	4.48	+.16
Infant and Maternal Mortality:						
a. Total registered live births	1,240	1,224	+16	18.34	18.24	+.10
b. Registered stillbirths	19	21	—2	.28	.31	—.03
Stillbirths per 1,000 live births and stillbirths	—	—	—	15.10	16.87	—1.77
c. Deaths of mothers from causes incident to childbirth	6	10	—4	.09	.15	—.06
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	4.76	8.03	—3.27
d. Deaths in first year per 1,000 live births	—	—	—	69.35	70.26	—.91

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	37	50	—13	54.7	74.5	—19.8
Homicides	1	2	—1	1.5	3.0	—1.5
Suicides	10	8	+2	14.8	11.9	+2.9
Automobile accidents* (death in Boston)	10	8	+2	14.8	11.9	+2.9
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	9	7	+2	13.3	10.4	+2.9
Broncho-pneumonia	37	32	+5	54.7	47.7	+7.0
Cancer	104	99	+5	153.8	147.5	+6.3
Cirrhosis of the liver	9	5	+4	13.3	7.4	+5.9
Diabetes mellitus	15	17	—2	22.2	25.3	—3.1
Diarrhea and enteritis (under two years)	29	19	+10	42.9	28.3	+14.6
Degenerative Diseases, So Called:						
Arterio sclerosis	18	21	—3	26.6	31.3	—4.7
Cerebral hemorrhage	37	35	+2	54.7	52.1	+2.6
Heart disease	134	130	+4	198.2	193.7	+4.5
Nephritis, chronic	53	45	+8	78.4	67.0	+11.4

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis.....Cases..	*69	6	+63	102.1	8.9	+93.2
Deaths.	6	—	+6	8.9	—	+8.9
Cerebrospinal meningitis.....Cases..	—	1	—1	—	1.5	—1.5
Deaths.	—	—	—	—	—	—
Diphtheria.....Cases..	32	57	—25	47.3	84.9	—3.76
Deaths.	1	1	—	1.5	1.5	—
Influenza.....Cases..	—	3	—3	—	4.5	—4.5
Deaths.	—	2	—2	—	3.0	—3.0
Measles.....Cases..	54	19	+35	79.9	28.3	+51.6
Deaths.	—	—	—	—	—	—
Pneumonia (lobar).....Cases..	27	39	—12	39.9	58.1	—18.2
Deaths.	7	12	—5	10.3	17.9	—7.6
Scarlet fever.....Cases..	52	96	—44	76.9	143.0	—66.1
Deaths.	—	—	—	—	—	—
Tuberculosis (pulmonary).....Cases..	114	95	+19	168.6	141.5	+27.1
Deaths.	36	30	+6	53.2	44.7	+8.5
Tuberculosis (other forms).....Cases..	31	23	+8	45.8	34.3	+11.5
Deaths.	1	2	—1	1.5	3.0	—1.5
Typhoid fever.....Cases..	10	11	—1	14.8	16.4	—1.6
Deaths.	1	3	—2	1.5	4.5	—3.0
Whooping cough.....Cases..	142	99	+43	210.0	147.5	+62.5
Deaths.	1	3	—2	1.5	4.5	—3.0

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

*Forty-five (45) of these were nonresidents.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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BELLYACHES.

It is usually presumed that a sudden attack of abdominal pain is due to something that has been eaten. As a pure matter of mathematical probability such a conclusion is justifiable. With few exceptions, people eat at least three times a day. The carelessness, ignorance and avarice of those who provide and prepare food as well as carelessness, ignorance and motives of economy on the part of those who eat it, all tend to put into a person's stomach material which may call forth an internal remonstrance.

Food need not be intrinsically harmful to cause trouble. The value of food to a particular individual is not determined by its theoretical calories. It is determined by that individual's personal ability to get calories out of the food. This depends upon the form and combination in which the food is eaten, the person's mental state as well as physical condition when it is eaten, upon the dietary habits of the person and perhaps upon certain peculiarities or idiosyncrasies which individuals frequently exhibit and which may render a potentially nutritious article of food actually poisonous to them.

In the animal experimentation on which our own ideas of food values are so largely based, individual animals are frequently encountered which likewise exhibit peculiarities with respect to their

assimilative capabilities. Such animals may be regarded as unsuitable for laboratory purposes, but human beings with similar peculiarities are not so easily disposed of.

Much valuable knowledge of the potentialities of foodstuffs has been acquired by laboratory experiments both on animals and men, but it is not to be forgotten that the old saying "what is one man's meat is another man's poison" is absolutely true and that in human affairs it is the abnormal, whether infant, child or adult, who has the greatest need of dietary advice.

The person who is stricken with a sudden attack of abdominal pain will ascribe the cause to something he has eaten or drunk and if possible will find a way of blaming somebody else for the occurrence. Under such circumstances, he may not be fair to others. The investigations by the Boston Health Department of cases of alleged food poisoning would indicate that most cases of acute trouble from food are due really to hoggishness, to an unreasonable intake of unaccustomed articles or bad combinations of food and drink, under conditions unfavorable to digestion. This has even been found to be the real explanation of apparently wholesale instances of food poisoning at banquets.

No foodstuff can fail to cause trouble, digestion of which is not started right in the stomach, and it cannot be started right without a normal functioning of the stomach and an adequate supply of gastric juice of sufficient concentration. Excessive amounts of liquids, even of milk, may dilute the gastric secretion below the point of digestive effectiveness. We have lately also come to realize the importance of the maintenance of a certain degree of acidity of the contents of the stomach in preventing harmful bacterial infections of the intestinal tract. In limited amount cold articles of food or drink may serve to stimulate digestion, but the point is soon reached when ice cream, cold soft drinks, cold beer, or cold milk, will derange the normal functioning of the whole digestive tract.

The state in which food is swallowed or the combinations in which it is eaten may also prevent a normal process of digestion. An unripe banana may be resistant to digestion because of its unconvertible starch, but a ripe banana will also be indigestible if it be swallowed in chunks too large to be permeated by the digestive secretions.

In the experience of the Boston Health Department, probably no article is blamed more often for acute violent digestive upsets than candy, yet never have we found anything wrong with the candy which has been held responsible. A tendency of sweets to "upset the stomach" is, of course, well recognized. Our complaints about candy, however, suggest the possibility of some action

which may not be understood. It may be possible that sugar may produce an irritation of the digestive mucosa similar to that which sugar may cause and maintain in the respiratory tract. The tolerance for sugar varies greatly in different individuals. So does the capacity to utilize fats, including cream. In so far as our knowledge goes of the effects of what we put in our stomachs, be it food, drink or medicine or anything which is capable of being beneficial will also prove harmful if a certain amount be exceeded. The amounts of food containing desirable vitamines cannot be increased with impunity. Because our dietary habits make a spoonful of orange juice daily a wise precaution, it does not necessarily follow that a pint of orange juice a day would be beneficial to everybody.

From our official experience it would appear that a person who has been made sick by food usually forms a very definite idea as to the article responsible and also that his identification is almost always wrong. There is a tendency to ascribe the trouble to something eaten shortly before the onset of symptoms, whereas the real cause is some forgotten article which formed a part of a meal six, twelve or twenty-four hours before. Practically nothing except an active chemical or mechanical irritant is likely to cause immediate abdominal pain. In ordinary cases of food poisoning, bacterial growths within the body after the food is eaten are an important factor. Such articles as chowders, stews, cream filling for pies and cakes, potato salad or other cooked vegetables which have been kept too long, are probably the most common causes of the cases of food poisoning which come to our attention. It should be better appreciated that the temperature of the average household refrigerator does not prevent putrefactive changes in food or harmful bacterial growths. A strong, healthy gastric juice prevents a great deal of trouble from spoiled food, but it would appear that hot weather is likely to bring about a deficiency in the acidity of the gastric secretion, the very time when its protective powers are most needed.

Of foodstuffs possibly harmful when purchased, fish, chicken and cured fore shoulders of pork seem to be our most frequent causes of complaint. Painful abdominal episodes are also often attributed to canned lobster, salmon or shrimp. While all the articles just mentioned are capable of acquiring a harmful character, they are all foodstuffs as well, to which individual idiosyncrasies or protein sensitiveness are common, and many of our complaints of food poisoning are found to be due to this cause rather than to a poisonous condition of the foodstuff itself.

The part that such protein sensitivity plays in digestive disturbances is far from being appreciated. Asthma, hives and eczema

have come to suggest in themselves a probable dietary cause, but the causes of digestive disturbances are so numerous and varied that one is less likely to link protein sensitivity with symptoms of irritability of the digestive mucosa especially if foodstuffs which form a part of the regular diet be involved. Yet a sensitiveness which seems to show itself rather as a limited tolerance to certain cereals, including wheat and oatmeal, is comparatively common. When a person is found to have such an idiosyncrasy with respect to one or two articles of food, investigation may be expected to show a state of protein sensitivity which renders him susceptible to a similar action from others. Such persons are likely to be found to be intolerant of pork or veal or lamb, and of such fish as salmon, shad or mackerel, or lobster or oysters, and of certain nuts. To some, cow's milk may be poisonous. A person is likely to discover that some occasional article of food "does not agree with him," but a part of his habitual diet is more likely to escape suspicion as a cause of digestive trouble.

One cause of abdominal pain that should receive more frequent recognition is early trichinosis. Nonfatal cases of trichinosis are much more common than is generally supposed because they usually are not recognized. The pain in itself is not diagnostic, but the injection of the conjunctiva, and puffiness of the eyelids soon ought to arouse suspicion and lead to the discovery of an eosinophilia and other confirmatory symptoms. Most of our cases of trichinosis have been reported as cases of typhoid fever and our investigations have usually led to the discovery of other unsuspected cases from the same pork.

Pain is pressure on nerves. A pin prick or a blow on the surface of the body injures a nerve, and in most instances pain is felt where the nerve is injured. A bellyache is usually a more complicated phenomenon. The pressure on nerves is brought about in a different way. It is seldom the result of direct violence.

The digestive canal beginning at the mouth is more than a chemical apparatus. It is a vital organ nearly 30 feet long. The introduction of food into the stomach serves to start purposeful activity in the intestines as well as in the stomach. Regular rhythmic movements of the digestive tube whereby its contents are churned and moved back and forth with a progressive gain in a forward direction are essential to the successful operation of the digestive process.

There also must be introduced into the tube and mixed with its contents at the proper time and in proper amounts the various digestive secretions. As a vital organ, provision must be made for its own proper maintenance and nutrition. The abdominal circula-

tion of fluids for this purpose as well as for the removal of nutrient products of digestion by the lymph vessels is largely accomplished by the movement of the diaphragm and the process of breathing. The action of the digestive canal and the control of the accessory organs supplying the digestive secretions call for the incorporation of an elaborate muscular system in and about the digestive tube for its entire length. A complicated arrangement of nerves controls the operation of these muscles.

The contact of food with the local nerve terminals in the lining of the stomach provides a nerve stimulus which serves to call the muscles of the digestive apparatus into action. They will also respond to nerve impulses from other sources. The sight or smell of food may cause preparations for its reception. The stomach may even start to get ready for a meal as the customary time of eating approaches. A well-known gastroenterologist has stated that the digestion of a person with methodical habits is likely to be deranged for two days as a consequence of a change in his meal hours on Sunday.

The nerves governing the digestive process interlock with those controlling other bodily functions. They are connected with those of the glands which furnish the so-called "internal secretions." They are tied up in the same nerve trunk as those which go to the heart and irritation of terminal nerve filaments in the digestive tube may affect the action of the heart or a diseased condition of the heart may give rise to abdominal symptoms. They are interwoven with nerves originating in the part of the brain which has to do with mental processes and the digestive function is profoundly affected by emotional states. Uterine displacements or disease may give rise to distressing digestive disturbances. Nausea may be a symptom of eye strain.

A bellyache is not necessarily due to something which has been eaten even though this is the most frequent cause. Abdominal pain with abnormal action of the digestive apparatus may have its cause in the abdomen apart from the digestive tract, or in the pelvis. It may be due to the spasmodic contraction of ureter on a kidney stone. Even when arising from within the digestive tube, pain comes as an indirect rather than a direct consequence of local irritation. An unusual nerve stimulus leads to a derangement of the regular orderly muscular movements of the tube and a localized abnormal muscular contraction of the tube upon its contents, thus bringing about pressure upon the sensory nerves of the tube. A spasm of the abdominal muscles outside the digestive tube may contribute to the pressure. A spastic condition in the intestines is likely to set up an unnatural closure of the outlet or inlet of the stomach, or both. It is from mus-

cular pressure on something locally imprisoned in the stomach that stomach distress in digestive derangements usually arises. Elsewhere also the digestive tube may contract spasmodically with painful results upon semi-liquid undigested material or air. Abdominal pains are usually real muscular "cramps." So-called "gas," which is held responsible for much abdominal distress, may be a product of putrefaction or fermentation, but it is more likely to be air which is always to be found in the digestive canal and which tends to be swallowed excessively by persons suffering from any sort of a disturbed function of the digestive machinery. The "gas" which is belched is usually air that has been unconsciously "cribbed." It may be partly carbon dioxide gas which has resulted from the decomposition of bicarbonate of soda taken for the relief of symptoms.

The disturbance of the normal muscular action of the digestive tube may result in a reversal of the direction in which its contents are moved. This may manifest itself with respect to the stomach in vomiting or belching or in reversed intestinal action, or both.

There are unnecessary fatalities from an unjustifiable assumption as to the cause of abdominal pain. A more frequent recital of the facts just stated would tend to lessen their number. We cannot be too often reminded that any manifestations of a disordered action of the digestive canal which may be brought about by a direct irritation of the canal itself may be likewise produced by nerve impulses coming from other parts of the body with whose nerves those of the digestive apparatus interlock. Neither the character nor apparent location of abdominal pain is to be regarded as conclusive with respect to its cause.

The onset of an acute appendicitis is commonly mistaken for the effects of something which has been eaten. In spite of a better recognition of symptoms of appendicitis and advances in surgical skill, the records of the Metropolitan Life Insurance Company show that mortality from appendicitis among its policyholders has markedly increased in the last ten years. Whatever the explanation, be it merely better statistical records or otherwise, the number of deaths emphasizes the seriousness with which possible symptoms of appendicitis are to be regarded. The irritation of an inflamed appendix down towards the groin causes pain which is usually felt in the center of the abdomen, where pain from simple acute indigestion may be expected to be felt, and vomiting tends to confirm the assumption of trouble from food. In typical cases tenderness appears later in the vicinity of the appendix itself, but it is often a very difficult matter to locate tenderness in connection with abdominal pain, and points of apparent sensitiveness to pressure alone furnish an unreliable diagnostic aid. A portion of an intestine

in a state of spastic contraction, whatever the cause, is tender under manipulation and in nervous patients of all ages tenderness over the large abdominal blood vessels is common.

Besides appendicitis, other dangerous acute abdominal conditions are to be thought of in cases of persistent abdominal pain, tenderness and disorderly action of the alimentary tube. Such symptoms may result from obstructive interference with the normal action of the intestines. In the course of the development of thirty feet of digestive tubing and stowing it into the abdominal cavity malformations often occur and such anomalies may create dangerous situations in later years. Disorderly action of the intestines may produce twists or telescoping. Scar tissue contracts and adhesions from old abdominal operations may call for emergency surgery when the original operation has been almost forgotten. Internal as well as visible hernias may occur and get pinched between muscles. In all obstructive interferences with the passage of intestinal contents a general bodily poisoning develops and rapidly diminishes chances of recovery from an operation, no matter how skillfully done. Acute attacks of appendicitis frequently recover without operation, but the chances of the spontaneous recovery from an intestinal twist or volvulus are not worth considering. While abdominal operations may be performed unnecessarily, it is to be remembered that when abdominal pain and functional disturbance with evidence of general systemic effects have persisted for several hours without obvious cause, and with no positive tendency for symptoms to become less serious, there is usually more risk in waiting than in operating, provided the requisite surgical skill and experience be available.

There are two distressing conditions which one may hear mentioned as having given occasion for unnecessary abdominal operations. Both have been mistaken for appendicitis by surgical consultants whose professional horizon has been so narrowed by their specialty that they have been unable to see the whole of a clinical picture.

A plugging of a branch of a degenerated coronary artery in the heart may give rise to abdominal pain and vomiting simulating acute appendicitis. An occurrence of this character, coronary occlusion, is the real explanation of most deaths ascribed to "acute indigestion." A person fifty years old, or older, may have acute appendicitis; he often has arteriosclerosis, and he may have both. In persons in middle life and beyond, there is justification for waiting until the heart can be eliminated as a cause of abdominal symptoms and the cause definitely located in the abdomen itself, before consenting to an operation. In a person under twenty the chances of arteriosclerosis may be practically ignored.

Renal colic due to the passage of oxalate of lime or other calculi or crystals down from the kidney may also manifest symptoms which have led to an operation for appendicitis. We may lose confidence in a surgeon who makes this mistake, but we should also be reminded that opportunities for mistaking renal colic for appendicitis would be decidedly less if our medical advisers were not continually "touting" the desirability of spinach and milk as articles of diet. The surplus of lime in cow's milk beyond human needs embarrasses the excretory organs and the oxalic acid in spinach does the rest. It needs only a microscope, a centrifuge, ability to recognize oxalate of lime crystals and red blood corpuscles in urine and an acquaintance with the anatomy of the kidney, usual and anomalous, to see the dangerous possibilities of partaking freely of the combination of spinach and milk. The children of human beings who get milk or other liquid in reasonable quantities as an adjunct to their diet and not as a substitute for food and who trust to beef for the supposed virtues of spinach will approach adolescence with greater physical stamina and ability to resist infection than those who follow closely current dogmatic dietary precepts which disregard accumulated human experience.

Appendicitis, gastric and abdominal ulcers and colicystitis (inflammation of the gall bladder) are all conditions whose symptoms are pain and digestive disturbance. In all three the cause still remains an unsolved biological mystery and advice as to prevention is consequently useless. There is some evidence, however, tending to indicate that their occurrence may be related to lowered resistance to infections. In addition, Howe and others have found a possible connection between an apparent gastric ulcer formation in certain animals and a dietary deficiency in vitamin A, but it is by no means clear that this tells the whole story.

Unlike appendicitis, gastric or duodenal ulcers and colicystitis may continue indefinitely without developing symptoms indicating danger to life. Gastric and duodenal ulcers may heal and such a result is favored by a selected diet. Both ulcers and colicystitis have exceedingly dangerous possibilities, the former from the erosion of a blood vessel and hemorrhage, or perforation giving rise to peritonitis, and the latter from the development of an abscess in the gall bladder, or what is worse, from an extension of infection from the common duct up the pancreatic duct into the pancreas, causing an intensely painful and rapidly fatal infection of that organ. The usual course of ulcers and of colicystitis is characterized by disturbance of the digestive function, by derangement of normal muscular action in the digestive tube and spastic muscular contraction of the tube, rather than by localized pain at the site of the ulcer or gall bladder, although this may also intermittently occur.

It has been believed that similar functional digestive disturbances of the digestive apparatus can result from what has been called "chronic appendicitis" in distinction from recurrent attacks of acute appendicitis. The removal of the appendix has been regarded as an appropriate treatment for digestive troubles for which no other cause was apparent. In such instances the appendix is often found to have undergone degenerative or "obliterative" changes. There is a tendency today, however, to make further search elsewhere for the cause of digestive troubles formerly ascribed to "chronic appendicitis." The writer's attention has been called to two series, each of more than a thousand cases, of persons who had been kept under observation for more than three years after the removal of the appendix for "chronic appendicitis." In all the cases thus followed, the digestive symptoms which led to the operation eventually recurred, although in many instances they had disappeared for some time immediately after the operation.

The functioning of the digestive apparatus is markedly influenced by the connections of its nervous mechanism with the parts of the brain which have to do with mental processes. Digestion is promoted by a cheerful mind. It may be arrested by anger, fear or grief. Emotional disturbances of the digestive apparatus are to be seen in animals as well as in men. In animals, as in human beings, the response in the abdomen to causes of emotional excitation varies greatly with different individuals. The unnatural conditions under which laboratory animals are kept and which apparently do not disturb some animals may render others of the same species unfit for experimental purposes. In man, derangements of the functioning of the digestive tube from emotional causes may, directly or indirectly, give rise to symptoms similar to those produced by serious diseases of the digestive apparatus itself.

The immediate effects of mental impressions upon the digestive apparatus are often remarkable. Three apparently imperturbable, well nourished adults, two men and a woman, gave us a history of food poisoning with symptoms lasting nearly all night and their appearance was consistent with such an unpleasant experience. After eating an evening meal of which a hamburger steak formed a part, some of the meat was given to the family dog. Shortly thereafter, the dog was seized with convulsions. It was suggested that the hamburger was probably the cause. Thereupon, one after the other of the three persons became violently sick. We were able to prove that the meat was perfectly wholesome as was everything else eaten at the same meal and that there could have been no common cause of sickness at previous meals.

A deranged digestive function, whatever the cause, also reacts on the mind. From most ancient times, the heart has been the

emblem of affection, animation and courage, while the cause of a gloomy mentality has been placed in the abdomen. A "hypochrondriac," a "dyspeptic," a "bellyacher" have come to be synonyms for a gloomy pessimist. *He would make his bowels serve him as a heart, he is trying to get courage out of his bowels,* is a free translation of an expression which the Spanish apply to a person who is failing to meet a situation with the courage or fortitude which he should exhibit. Futility is implied in the Spanish expression just mentioned, but after all we are really dependent upon the proper functioning of the digestive apparatus for moral as well as physical stamina. The old British warrior, Lord Wolsley, once said, that by his long military experience he had been taught to regard bravery merely as an attribute of good health.

TUBERCULOSIS AND CANCER.

Mass psychology and mass effort apply both directly and indirectly to the tuberculosis problem. Mass production has brought greater mass prosperity and that in itself has resulted in a great improvement in the death rate from that disease.

Furthermore, nearly everybody is at one time or another infected with tuberculosis and the danger of active disease is always present to a very large percentage of the population. Prevention likewise involves habits and practices which apply universally.

Cancer, on the other hand, is something quite individual. It is not contagious and discovery of its presence depends upon individual initiative. Treatment is highly specialized and may vary according to the character of the ailment found in any particular patient. Prosperity and poverty appear to have no particular influence over cancer. Nothing more definite than general hygienic living can be recommended as a preventive of cancer while early diagnosis, which is followed by the proper treatment of cancerous conditions, is the only recommendation for controlling this disease.

Statistics indicate that the death rate from tuberculosis has declined in Illinois from 128.6 in 1918, to 70.1 in 1929, a drop of 45 per cent, while that from cancer has gone up from 82.2 to 108.9, a rise of 30 per cent.— *The Illinois Health Quarterly, April-June, 1930.*

THE DEFECTIVE CHILD.

The defective child, unless corrected, becomes the defective man, and where correction is possible during early life, it becomes well nigh impossible during later life.

DIPHTHERIA CONTROL — ACTIVE IMMUNIZATION THE ONLY EFFECTIVE METHOD.

Responsibility for diphtheria control rests primarily on the shoulders of the local board of health. Until such time as communities of and by themselves organize a well thought out diphtheria prevention program which will continue from year to year, diphtheria will attack four to five thousand Massachusetts children every year and will kill more than five out of every one hundred sick.

The only effective method of prevention is active immunization. The New York State Health Department is convinced that active immunization of one-third of the children under five in any community will prevent an epidemic of the disease. This does not mean that diphtheria will be "stamped out," since no child can be considered protected from diphtheria unless immunized; it does mean, however, that there will be no outbreak.

However effective isolation and quarantine may be in a given circumstance, the actual control of diphtheria is entirely dependent on the utilization of the only effective preventive measure — active immunization.

(Excerpt from "The Commonwealth," Vol. 17, No. 3, Massachusetts Department of Public Health.)

SUMMARY OF WORK, OCTOBER, 1930.

ADMINISTRATION DIVISION.

Prosecutions	2	Personnel:	
Legal notices	140	Permanent appointments	4
Settlements:		Temporary appointments	2
Total cases	123	Promotion	1
Notices	87	Transfer	1
Bills	36	Resignation	1

LICENSES, PERMITS ISSUED, DISAPPROVED, ETC.

Burial permits	1,198	Pasteurization of milk	22
Denatured alcohol approved	40	Ice cream manufacturer approved	1
Hen licenses approved	5	Milk licenses approved	118
Massage-manicure approved	219	Pedlers' licenses approved	41
Ice cream dealers approved	40	Lying-In Hospitals approved	5
Dump permits approved	3		
Dump permit revoked	1		

MEDICAL DIVISION.

Reported cases	1,084	Visits:	
Nonresidents	85	By V. D. investigator	354
Deaths investigated	27	By medical inspectors to cases of communicable disease	323

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	34	
Positive for release	19	
Negative for diagnosis	404	
Negative for release	41	
No growth cultures	85	
	—	583
DARK FIELD:		
Positive	2	
Negative	2	
Unsatisfactory	1	
	—	5
GONORRHEAL OPHTHALMIA:		
Positive	1	
Negative	54	
	—	55
GONORRHEAL URETHRITIS:		
Positive	160	
Negative	729	
Unsatisfactory	2	
	—	891
GENITO URINARY TUBERCULOSIS:		
Negative		16
MALARIA:		
Negative		2
MISCELLANEOUS EXAMINATIONS:		
Positive	6	
Negative	50	
Unclassified	87	
	—	143
TUBERCULOSIS:		
Positive	51	
Negative	269	
Unsatisfactory	8	
	—	328
TYPHOID:		
Positive	2	
Negative	25	
Atypical	3	
	—	30
SYPHILIS:		
Positive	105	
Negative	856	
Unsatisfactory	9	
Doubtful	5	
	—	975
Bacteriological milk examinations	777	
Bacteriological ice cream examinations	60	
Total		837
Milk bottles examined		32
Swimming pools examined		80
Caps for milk bottles examined		90

Smears for Vincent's angina, 7; unit urines, 87; urine for eberthella typhi, 20; feces for eberthella typhi, 20; canned salmon for B. Coli, 2; vaginal culture for organisms, 1; clams for B. Coli, 2.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during October, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours before pasteurization; a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization, and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.75	4.03	10,000
Antetomasso, Peter	12.77	4.02	8,000
Brandley, T. J. & P. J.	12.71	3.90	6,000
Buxton, William E.*	14.32	4.85	550
Casey, James D.	12.53	3.98	14,000
Cashin, J. F., & Co.	12.89	4.05	18,000
Cedar Hill Farm, Inc.*	13.34	4.33	17,000
Chapin, George L.	13.25	4.24	16,000
Clark, Levi	12.65	4.10	15,000
Corkery, John J.	12.80	3.93	8,000
Cosgrove, Martin S.	12.92	3.87	16,000
Daley, John	12.56	4.00	3,300
Dean, Louis W.*	13.38	4.40	12,000
Deerfoot Farm Company	12.91	4.17	15,000
Denehy, Timothy	12.75	3.90	11,000
Driscoll, William B., Company	12.81	4.07	14,000
Elm Spring Farm Company	12.58	3.82	18,000
Ferguson, Malcolm D.	12.79	3.83	62,000
Garfield, Mason *	15.23	6.00	250
Garvin, Charles	14.28	5.43	250
Giroux, J. E. & H. J.	12.65	3.90	27,000
Griffin, Joseph L.	12.96	4.01	11,000

* All milk from tuberculin tested cows.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Gushee, Chester W	12.93	4.02	17,000
Hampden Creamery Company	12.62	3.63	83,000
Herlihy Brothers, Inc	12.58	3.79	23,000
Hickey, J. B	12.46	3.90	9,000
Holden, John E	12.42	3.76	12,000
Hood, H. P., & Sons, Inc	12.57	3.82	13,000
Hutchinson, Frank T	12.94	4.15	14,000
Jones, Willian T., Company	12.59	3.97	19,000
Kendall Brothers	12.72	3.80	9,000
Kingston Brothers	12.99	4.20	15,000
Knapp, George J	12.64	3.79	34,000
Lang Brothers	12.56	3.93	12,000
Larsson, Charles	12.82	3.83	32,000
Lyndonville Creamery Association	12.93	4.07	11,000
Manning, Harriet	12.67	3.90	13,000
McAdams, J. F., & Brothers, Inc	13.04	4.08	12,000
McKernan, John	12.62	3.80	28,000
New England Creamery Products Company *	12.82	4.05	18,000
Prescott, J. B., Company	12.69	4.05	15,000
Robinson, A. J	12.66	3.77	14,000
Schuster, Adam	12.85	3.95	27,000
Seven Oaks Dairy Company	12.59	3.84	14,000
Shick, Jacob	12.57	3.83	11,000
Somerset Farms Creamery Company	13.27	4.40	13,000
Sterling Farm Milk Company	12.79	3.95	12,000
Stone, H. L	12.78	3.93	6,000
Stuart, W. E., Company	12.89	4.10	20,000
Turner Centre System	12.53	3.79	14,000
United Farmers Cooperative Creamery Association, Inc	13.02	4.11	23,000
Walker-Gordon Laboratory Company *†	12.56	3.70	100
Weiler, E., & Sons	12.82	4.03	21,000
Westwood Farm Milk Company	12.62	3.88	10,000
White Brothers	12.83	3.98	18,000
Whiting Milk Companies	12.44	3.75	12,000
Whittemore, W. D	13.08	4.23	13,000
Williams, Edward C	12.84	4.37	20,000
Wiswall, Granville A	12.40	3.85	11,000
Woodland, Charles L	12.71	3.90	16,000

* All milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORE MILK—MARKET MILK—PASTEURIZED.

Name of Dealer.	Supplied by	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.52	3.80	25,000
M. Brown & Sons.....	Whiting Milk Companies...	12.50	3.80	15,000
The Cloverdale Company.....	Herlihy Brothers, Inc.....	12.63	3.82	28,000
Economy Grocery Stores Corporation.....	Herlihy Brothers, Inc.....	12.51	3.75	33,000
First National Stores, Inc.....	Bellows Falls Cooperative Creamery Association.	12.92	4.13	28,000
Morgan Brothers Company.....	New England Creamery Products Company.*	12.91	4.12	16,000
M. Winer Company.....	M. Winer Company.....	12.89	4.13	14,000

* All milk from tuberculin tested cows.

GRADE A MILK—PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Antetomasso, Peter.....	13.16	4.20	6,000
Cashin, J. F., & Co.....	13.19	4.50	1,500
Cosgrove, Martin S.....	13.39	4.50	10,000
Dean, Louis W.*.....	13.96	4.70	7,000
Elm Spring Farm Company.....	13.60	4.53	15,000
Griffin, Joseph L.....	13.38	4.50	9,000
Gushee, Chester W.....	13.36	4.40	12,000
Herlihy Brothers, Inc.....	12.83	4.30	31,000
Hood, H. P., & Sons, Inc.*.....	12.73	4.18	8,000
Jones, William T., Company.....	13.29	4.53	40,000
Lyndonville Creamery Association.....	13.63	4.70	7,000
McAdams, J. F., & Brothers, Inc.....	13.07	4.36	9,000
New England Creamery Products Company *.....	13.47	4.45	9,000
Robinson, A. J.....	13.77	4.70	12,000
Seven Oaks Dairy Company.....	12.97	4.20	3,000
Sterling Farm Milk Company.....	13.03	4.20	8,000
Turner Centre System.....	12.50	4.10	9,000
Weiler, E., & Son.....	13.17	4.42	27,000
White Brothers.....	13.16	4.41	18,000
Whiting Milk Companies *.....	12.84	4.17	6,000

* All milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested and accredited.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Deerfoot Farm Company.....	Alta Crest.....	12.84	4.00	900
Hood, H. P., & Sons, Inc.*.....	Own.....	13.43	4.30	4,000
Walker-Gordon Laboratory Company.*	Own.....	13.16	4.30	2,500
Whiting Milk Companies.....	Hampshire Hills.....	13.51	4.30	1,000

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standard, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P., & Sons, Inc.*.....	Own.....	13.48	4.30	100

* All cows tested and reported free from infectious abortion.

DISINFECTION OF SICK ROOM.

If due care as to cleanliness of sick room has been taken during the course of the illness, disinfection after the recovery of the patient will be very much easier. In any case, after the recovery of the patient, bed covering should be spread about so as to "air" the bed; closet doors and bureau drawers should be opened, and then windows and doors leading into the open air should be thrown wide open for twenty-four hours or more. Then proceed to remove from the room for destruction such articles as are to be destroyed, and give the room generally a thorough "housecleaning."

Fresh air is not a discovery of today or yesterday; it is just something good and old and necessary which we neglect in the hustle of our daily lives and which we must pay heed to if we would live well, live longer and live better.—"*Fresh Air.*"

DAIRY DIVISION.

Total services	1,390	Total cattle inspected	18,144
Dairies inspected	974	Inspection of milk plants and licensed dealers	257
Scoring above 50 *	760	Country creamery inspections	3
Scoring below	214	Sediment tests	81
With milk rooms	817	Investigation of high bacterial counts	10
Without milk rooms	157		
Inactive	17		

* Passable mark.

FOOD INSPECTION DIVISION.

October, 1930.

District inspections	3,474
Reinspections	371
Market inspections	1,205
Terminal inspections	542
Vehicle inspections *	3,532
Stand inspections	941
Complaints	40
Notices to abate	205
Condemnations	7,129 pounds
Pedler Service:	
Numbers assigned	47
Licenses certified	41
Vehicles approved	755

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	3,936	Parts condemned	1,103
Calves inspected	3,077	Animals condemned	66
Swine inspected	4,105	Total of meat condemnations (pounds)	25,909
Sheep inspected	690		

SANITARY DIVISION.

Original inspections	2,662	Complaints investigated	552
Causes for action found	1,544	Nuinsances bated	1,793
Reinspections	5,951	Routine inspections	2,538
Legal notices served	124		

A WARNING.

Most persons who contract pneumonia have had colds.

Colds are never to be neglected. Their proper care should include the avoidance of crowds where people may be scattering pneumonia germs.

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	15	100	67	167	23	17	40
East Boston	10	28	92	120	5	20	25
North End	13	25	43	68	2	5	7
West End	13	35	55	90	7	9	16
South Boston	13	49	80	129	8	30	38
Boston Dispensary	10	37	7	44	13	1	14
Brighton	6	13	8	21	3	—	3
Charlestown	8	26	33	59	2	5	7
Codman Square	12	66	52	118	7	6	13
Hyde Park	10	41	46	87	6	12	18
Arcadia Street	5	14	10	24	3	1	4
Roxbury	3	52	31	83	8	8	16
Totals	118	486	524	1,010	87	114	201

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	21	24	56	91
East Boston	21	1	—	34
North End	5	1	—	35
West End	7	6	—	—
South Boston	45	7	98	86
Boston Dispensary	1	5	—	—
Brighton	1	1	—	—
Charlestown	9	2	—	17
Codman Square	10	5	—	—
Hyde Park	21	4	—	—
Arcadia Street	4	—	—	—
Roxbury	8	10	—	26
Totals	153	66	154	289

HEALTH UNIT SOLARIUM.

	Number of Children Present.
East Boston	469
North End	544
South Boston	405
Charlestown	382
Roxbury	593
West End	33
Total	2,426

All the above children were examined by physicians attached to staff of Tuberculosis Division.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING OCTOBER, 1930.

Classification.	Number.	Percentage.
After death	8	18.60
Seven days or less	9	20.93
Eight to fourteen days, inclusive	2	4.65
Fifteen to twenty-one days, inclusive	1	2.33
Twenty-two to thirty-one days, inclusive	—	—
Within First Month. (Total)	20	46.51
Within second month	—	—
Within third month	—	—
Within fourth month	1	2.33
Within fifth month	1	2.33
Within sixth month	1	2.33
Within seventh month	2	4.65
Within eighth month	—	—
Within ninth month	—	—
Within tenth month	1	2.33
Within eleventh month	1	2.33
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	27	62.81
Within second year	4	9.30
Within third year	1	2.33
More than three years	11	25.58
Grand totals	43	100.02

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF OCTOBER, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	48	28	19	12
North Reading State Sanatorium	1	7	—	5
Lakeville State Sanatorium	—	4	—	6
Rutland State Sanatorium	1	—	—	1
Westfield State Sanatorium	—	—	—	—
Tewksbury	—	—	—	—
Totals	50	39	19	24

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	—	—	—	—
Plymouth County Sanatorium	—	—	—	—
Channing Home	—	—	—	—
United States Veterans' Hospital	13	—	6	—
Doctor Crane's Sanatorium	—	—	—	2
Totals	13	—	6	2

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, October, 1930.

Inspections	393
Physical examinations	231
Schick tests	21
Toxin-antitoxin	3,194
Vaccinations at units	389
Vaccination certificates	386
Day nursery visits	13
Parochial school visits	32
Conferences	14

Report of Child Health Conferences, October, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	242	21	263	45	8	53	5	53
31 Lincoln street, Brighton	144	26	170	13	—	13	5	34
Charlestown Municipal Building	313	22	335	34	—	34	8	42
Codman Square Library	348	37	385	64	3	67	8	48
Columbia Road Municipal Building	264	24	288	29	1	30	8	36
1 Arcadia street, Dorchester	292	27	319	44	—	44	8	40
East Boston Health Unit	366	27	393	56	4	60	8	49
Hyde Park Municipal Building	265	39	304	28	—	28	8	38
Curtis Hall, Jamaica Plain	215	28	243	31	1	32	4	61
41 North Margin street	228	109	337	42	9	51	8	42
Roslindale Municipal Building	301	31	332	35	2	37	3	111
Roxbury Health Unit	598	40	638	69	1	70	13	49
Children's Hospital	169	16	185	21	—	21	3	62
1049 Columbus avenue	316	33	349	49	10	59	8	44
133 Dorchester street, South Boston	395	65	460	69	8	77	8	57
57 East Concord street	383	22	405	41	3	44	10	41
122 Tyler street	105	11	116	18	1	19	3	39
17 Blossom street	376	79	455	34	5	39	8	57
Totals	5,320	657	5,977	722	56	778	126	50

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, OCTOBER, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	7	3	1	11	9
31 Lincoln street, Brighton	3	3	3	9	12
Charlestown Municipal Building	9	6	4	19	43
Codman Square Library	28	18	16	62	54
Columbia Road Municipal Building	5	5	8	18	36
1 Arcadia street, Dorchester	15	13	4	32	56
East Boston Health Unit	11	17	13	41	52
Hyde Park Municipal Building	7	7	1	15	24
Curtis Hall, Jamaica Plain	3	2	2	7	7
Roslindale Municipal Building	7	2	6	15	22
Roxbury Health Unit	18	4	2	24	40
Children's Hospital	16	16	5	37	16
1049 Columbus avenue	2	3	3	8	51
133 Dorchester street, South Boston	—	—	—	—	4
57 East Concord street	3	3	3	9	22
122 Tyler street	3	3	2	8	11
17 Blossom street	20	16	5	41	8
Totals	157	121	78	356	467

CO-OPERATIVE HEALTH UNIT REPORT, OCTOBER, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
BOSTON DISPENSARY:								
Calls by district physicians	51	.....	68	.....	41	.....	38	198
BOSTON LYING-IN HOSPITAL:								
Number of prenatal clinics	4	3	4	3	5	5	2	26
Attendance	28	69	30	33	82	32	21	295
New cases	6	15	7	5	17	12	5	67
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,711	2,553	1,574	2,330	2,082	2,441	1,499	14,190
Cases referred	171	.....	.....	233	.....	.....	129	533
Diseases reported	7	.....	1	.....	.....	.....	1	9
MOTHERS' CLUB:								
Number of meetings	5	5	2	5	5	5	3	30
Attendance	52	55	12	107	84	60	60	430
FAMILY WELFARE SOCIETY:								
Number of staff meetings	3	3	.....	.....	2	3	2	13
Attendance	26	28	.....	.....	21	45	24	144
CHILDREN'S HOSPITAL:								
Infantile clinics	5	5	.....	3	5	4	.....	22
Attendance	44	19	.....	33	71	20	.....	187
New cases	.....	2	.....	.....	.....	.....	.....	2
STATE DEPARTMENT OF MENTAL HYGIENE:								
Number of clinics	.....	.....	.....	.....	.....	.....	5	5
Attendance	.....	.....	.....	.....	.....	.....	23	23
New cases	.....	.....	.....	.....	.....	.....	4	4
HEALTH DEPARTMENT:								
Refraction Service:								
Number of refractions	.....	.....	124	.....	.....	.....	.....	124
Number of diagnoses	.....	.....	130	.....	.....	.....	.....	130
Glasses recommended	.....	.....	45	.....	.....	.....	.....	45
New cases	.....	.....	40	.....	.....	.....	.....	40

VACCINATION.

It is a reflection upon the intelligence of any person to become ill with smallpox. Vaccination will prevent this dangerous disease. If vaccination or revaccination is necessary, go to your own doctor or to one of the Health Units of the Boston Health Department.

The good health and protection of childhood is fundamental to national welfare, and the march forward of our country must be on the feet of children.—HERBERT HOOVER.

Colds are contracted from other persons having colds, just as diphtheria is contracted from diphtheria.

— M. J. ROSENAU, M. D.

Ailments regarded as "minor" should be recognized promptly and accepted as the signal that the person is moving in the wrong direction.—"*How to Live.*"

NURSING SERVICE.

REPORT FOR OCTOBER, 1930.

Homes Visited			14,418
Child Hygiene:			
Visits to new cases		1,486	
Visits to old cases		8,710	
			10,196
Includes:			
Wrong addresses	140		
Not seen	1,070		
Absent visits	1,210		
Communicable Diseases:			
Visits to new cases		425	
Visits to old cases		720	
			1,145
Includes:			
Wrong addresses	14		
Not seen	54		
Absent visits	68		
Tuberculosis:			
Visits to new cases		211	
Visits to old cases		4,378	
			4,589
Includes:			
Wrong addresses	51		
Not seen	474		
Absent visits	525		
Positive cases	2,120		
Contacts	1,558		
Suspects	386		
	4,589		
Miscellaneous Visits:			
Maternal death investigations		3	
Patients accompanied to hospital		13	
Visits to day nurseries		33	
Visits to parochial schools		640	
			689
Total number of visits			15,930

	Hrs.	Min.
Hours in station by nurses	3,896	11
Hours at baby and pre-school conferences	1,804	25
Hours at tuberculosis clinic	844	50
Total number of hours	6,545	26

VITAL STATISTICS, OCTOBER, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING OCTOBER, 1930, WITH COMPARATIVE FIGURES FOR OCTOBER, 1929.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	891	847	+44	13.18	12.62	+.56
Nonresidents deducted	695	673	+22	10.28	10.03	+.25
By Age:						
Under one year	110	96	+14	1.63	1.43	+.20
One year to four years, inclusive	29	23	+6	.43	.34	+.09
Sixty years and over	395	317	+78	5.84	4.72	+1.12
Infant and Maternal Mortality:						
a. Total registered live births	1,271	1,224	+47	18.80	18.24	+.56
b. Registered stillbirths	47	30	+17	.69	.45	+.24
Stillbirths per 1,000 live births and stillbirths	—	—	—	35.66	23.92	+11.74
c. Deaths of mothers from causes incident to childbirth	5	10	—5	.07	.15	—.08
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	3.79	7.97	—4.18
d. Deaths in first year per 1,000 live births	—	—	—	86.54	78.43	+8.11

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	43	52	—9	63.6	77.5	—1.39
Homicides	—	1	—1	—	1.5	—1.5
Suicides	7	7	—	10.3	10.4	—.1
Automobile accidents* (death in Boston)	13	12	+1	19.2	17.9	+1.3
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	8	11	—3	11.8	16.4	—4.6
Broncho-pneumonia	46	42	+4	65.1	62.6	+2.5
Cancer	112	95	+17	161.2	141.5	—1.97
Cirrhosis of the liver	6	3	+6	8.9	4.5	+4.4
Diabetes mellitus	19	19	—	28.1	28.3	—.2
Diarrhea and enteritis (under two years)	22	9	+13	32.5	13.4	+19.1
Degenerative Diseases, So Called:						
Arterio sclerosis	18	24	—6	26.6	35.7	—9.1
Cerebral hemorrhage	68	49	+19	100.6	73.0	+27.6
Cereberal softening	—	2	—2	—	3.0	—3.0
Heart disease	157	159	—2	232.2	236.9	—4.7
Nephritis, chronic	75	57	+18	110.9	84.9	+26.0

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, OCTOBER, 1930.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis.....Cases..	* 86	* 12	+74	127.2	17.9	+109.3
Deaths.	8	3	+5	11.8	4.5	+7.3
Cerebrospinal meningitis.....Cases..	2	2	—	2.9	3.0	—.1
Deaths.	1	2	—1	1.5	3.0	—1.5
Diphtheria.....Cases..	67	105	—38	99.1	156.4	—57.3
Deaths.	—	4	—4	—	5.9	—5.9
Influenza.....Cases..	1	6	—5	1.5	8.9	—7.4
Deaths.	1	1	—	1.5	1.5	—
Measles.....Cases..	78	20	+58	115.4	29.8	+85.6
Deaths.	2	—	+2	2.9	—	+2.9
Pneumonia (lobar).....Cases..	79	96	—17	116.9	143.0	—26.1
Deaths.	33	29	+4	48.8	43.2	+5.6
Scarlet fever.....Cases..	113	186	—73	167.1	277.1	—110.0
Deaths.	1	1	—	1.5	1.5	—
Tuberculosis (pulmonary).....Cases..	137	141	—4	202.7	210.1	—7.4
Deaths.	43	54	—11	63.6	80.4	—16.8
Tuberculosis (other forms).....Cases..	36	15	+21	53.2	22.3	+30.9
Deaths.	8	4	+4	11.8	5.9	+5.9
Typhoid fever.....Cases..	3	13	—10	4.4	19.4	—15.0
Deaths.	—	1	—1	—	1.5	—1.5
Whooping cough.....Cases..	61	107	—46	90.2	159.4	—69.2
Deaths.	3	1	+2	4.4	1.5	+2.9

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

* Note.— Forty-seven cases and seven deaths during October, 1930, were of nonresidents, included in these totals.

DO NOT DESTROY.

When you have no further use for this Circular give it to someone else.

CITY OF BOSTON PRINTING DEPARTMENT.

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR, MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 19. BOSTON, DECEMBER, 1930. NO. 12

COLDS.

Under the heading, "Etiology of the Common Cold" there was published in the "Journal of the American Medical Association" of November 22, 1930, an interesting paper, which had been read at the annual meeting of the Association in Detroit, June 27, 1930. It summarizes the results of experiments made at the Department of Medicine of Columbia University and at the Presbyterian Hospital, New York City, under the direction of Gerald S. Shibley, M. D., Katherine C. Mills, M. D., and A. R. Douchez, M. D.

The work of these investigators extends over several years. They have produced no startling or unexpected discoveries, but they strengthen the conclusions of other laboratory workers and have gone somewhat farther than others in demonstrating by controlled laboratory experiments the validity of certain inferences regarding colds, to be drawn from clinical observations or from military and institutional experience. They have thus brought us a step nearer to a practical solution of one of our most important public health problems, the control of a contagious disease which is causing incalculable human disability and an enormous economic loss.

Regarding the practical importance of a better knowledge of the etiology of colds, the writer of the paper says: "In recent years widespread recognition has come about of the fact that the common

cold is not a simple minor infection of the upper respiratory tract which because of its mild symptomatology can be conveniently disregarded. The more thorough study of this disease begins to indicate that perhaps it may be the keystone of that complex structure of ills, the etiologic agents of which gain entrance to the body by way of the upper respiratory tract. A complete understanding of the pathogenesis of the common cold would not only be of value in solving the nature of this malady itself, but would undoubtetdly throw important light on the mechanism of all respiratory infections and even perhaps on certain diseases that are not regarded as clearly respiratory in origin."

Both chimpanzees and human beings were utilized in the experiments. Chimpanzees appear to be equally susceptible to colds as human beings. The experimenters' monkeys sometimes contracted colds from the men who fed them and otherwise cared for them in the stock rooms, notwithstanding the fact that such attendants were masked with view to preventing this occurrence.

The clinical symptons of a cold in chimpanzees were identical with those of colds in human beings. In both the symptoms of uncomplicated colds disappeared in a week or ten days. In neither, does an uncomplicated cold usually produce an elevation of the bodily temperature. In both, an immunity is apparently established which may be expected to last about three months.

In about 50 per cent of their attempts, the experimenters were successful in artificially infecting the monkeys with colds from either human beings or from chimpanzees. Washings from the noses of men or monkeys were used for the purpose. The experimental infections resulted from running into the noses of the subjects filtered washings from monkeys or men in the acute stages of colds.

In a second series, in which human beings were used exclusively, artificial infections by the same method were successful in the same proportion of attempts as in monkeys. The period of incubation whether in man or monkeys was from twenty-four to forty-eight hours.

It would now seem to be established beyond a reasonable doubt that the well-recognized bacteria so commonly found in the throats or noses of persons suffering from colds, such as pneumococci, streptococci, Pfeifer's bacillus, the bacillus catarrhalis, the staphlococci and other cocci are not active factors in the causation of colds. We would also seem warranted in believing that the more recently discovered filler passing bacteria are normal denizens of the upper respiratory tract unrelated to the causation of a cold. These experiments with those of Olitsky, Gates and others indicate that colds are

due primarily to a so-called *filterable virus*, "one of those mysterious agents the exact nature of whose biologic activity still remains obscure."

These elusive viruses suggest the possession of characteristics differing from those of any entity with which we are familiar and it would seem that a complete understanding of the causation of colds awaits an enlargement of our knowledge of our physical world that will also dispel the mystery which obscures the pathogeneses of infantile paralysis, encephalitis lethargica, yellow fever and influenza.

It would seem well established, that as with influenza, the undiscovered infective agent of a cold is not in itself dangerous, but is capable of rendering the body vulnerable to various bacteria, including the hemolytic streptocccci and other cocci, frequently found in the mouths and throats of people and which may be so carried and cultivated indefinitely without doing harm to the host. The way in which the causative agent of a cold serves to activate these potentially dangerous bacteria is likewise a biological mystery. In the studies summarized in the Journal article, it was found that coincident with the appearance of symptoms of a cold in the chimpanzees, pneumococci, the streptococcus hemolyticus and B. pfeifferi have developed in greatly increased numbers and have spread over a wide area of the naso-pharyngeal mucous membrane. "These organisims become at this time conspicuous even in the nose, where they are seldom or never present under a normal conditions."

It would thus seem that something happens in the early stage of a cold to favor the local growth of bacteria of this sort in chimpanzees. While the writer of the Journal article does not so state, clinical experience with human beings would seem to justify the conclusion that a similar multiplication of these bacteria in man is certainly not unusual.

The investigations described in the Journal article would indicate that the same bacteria were to be found ordinarily in the normal upper respiratory tract of chimpanzees as in man and in about the same abundance.

In view of our knowledge of the bacteriology of colds, it would therefore seem, even without the discovery of the primary cause of a cold, that any procedure which might tend to counteract the dangerous possibilities of the secondary invaders or even to check their transmission from person to person in a community would tend to reduce the dangers and economic losses from colds.

As mentioned in the "Boston Health Department Bulletin" for October, 1929, the number of persons to be found to be carrying potentially dangerous bacteria in the upper respiratory tract reach their maximum in this part of the country in the early spring, per-

haps a little after absenteeism from industry because of infections of the respiratory tract has attained its annual maximum. From this time on, the carriers decline in numbers until they reach their minimum in the summer. On the other hand, colds would appear to be most prevalent in the autumn with a secondary rise in December or early January. The autumn colds are, however, apparently not disabling since they are not clearly reflected in absenteeism from industry while the spring respiratory infections most decidedly are.

It seems reasonable to presume that the autumn prevalence of colds is due to a greater susceptibility to colds in the general population by reason of the disappearance during the summer of immunity acquired when colds were prevalent the previous season. Perhaps, also, as is claimed, increased opportunities for infection incident to the crowding of people indoors as the weather grows cooler; the diminished bactericidal power of the sun's rays and a lowered resistence of the nasal mucous membrane to infection now and then because of vaso-motor disturbances brought about by autumnal changes in temperature are one or all factors in causing colds to reach their maximum with the advent of cold weather each year.

In attempting to account for the steady increase in the population until spring of the carriers of the various cocci and other bacteria which as secondary invaders make colds dangerous, it seems justifiable to emphasize the crowding of people in unventilated spaces in winter and also to take into account the fact that during the colder months of the year people scatter about an increased amount of secretions from the upper respiratory tracts, whether because of an abnormal condition of the mucous membrane or as a result of the secretion stimulating effects of winter temperature and winds. It is axiomatic that the danger of the spread of any contagious disease is directly proportional to the amount of infective material which is being produced.

A cold is a contagious disease and doubtless the present disabilities and economic losses due to colds would be materially lessened if an educated public sentiment would exclude a person showing symptoms of a cold from association with his fellow beings. Such an attitude would operate especially for the benefit of the sick person himself. A person who is developing measles, influenza, or other diseases which might be named, including a cold, should be promptly isolated for his own sake. The great danger in all these diseases comes not from the initial infection but from a secondary invasion by bacteria which he may have been "carrying" without harmful effects or which he may acquire at any moment from association with others. Surgical clinical experience has taught us that physical rest, both local and general, furnishes a most valuable aid in

checking the extension of a dangerous infection calling for surgical treatment. It would seem reasonable to presume that a similar procedure might favor resistence to the extension of infections in the upper respiratory tract. Isolation and rest implies the maintenance of the respiratory mucous membrane at a fairly uniform equitable temperature. It may now be accepted as definitely established that the chilling effects of our average out-of-doors winter temperature tends further to reduce the infection-resisting capacity of an abnormal mucous membrane. "Going out and getting more cold" may mean either that the person's resistance has been knocked down by muscular exertion and exposure to unfavorable physical influences or that by mingling with other people he has acquired a new breed of infective bacteria.

The practical importance of colds will be reduced by any measures that will tend to check the spread in a community of those bacteria, which, as it has been said, come in as the "killers" after the primary infection has made the patient vulnerable to their action. Here again much might be accomplished by developing a public sentiment sufficiently strong to stop various habits and practices which favor the distribution in a community of bacteria like the various cocci so frequently found in peoples' throats towards the end of the winter season. In connection with measures directed against the dangerous potentialities of these secondary invaders the possibility of increasing resistence to their action by vaccines is also to be considered. If, for example, a person could be immunized to the action of the pneumococci and hemolytic streptococci under all conditions and circumstances, a cold itself would lose in a great measure its dangerous possibilities.

Vaccines have been used with view to the prevention of colds. They have been prepared from the well-recognized bacteria commonly found in the noses and throats of persons suffering from colds. This has been done under the presumption that these bacteria were primarily responsible for colds. Curiously, it would seem to be well established by actual experience that such vaccines have not infrequently prevented a person from developing colds for several months or a whole season, even though recent studies indicate that the bacteria used are not factors in originating a cold. In the present state of our knowledge of the subject, no one can really say that such a vaccine product, or for that matter some other protein unrelated to colds, might not serve to immunize a person against the as yet unidentified infective agent of a cold. In the light of more recent studies, however, it would seem that artificial immunization against the causative agent of a cold would be unlikely to be accomplished, unless by inoculation with some weakened

or "attenuated" virus, by some such procedure as has been successfully employed in the prevention of smallpox and rabies.

The maintenance of a person's immunity to the causative agents of disease results from a complex and as yet mysterious chemical reaction. The harmful products of pathogenic agents are rendered innocuous by a chemical combination with certain protective proteins which the body has succeeded in manufacturing. What we have learned about the phenomenon, gives us but a glimpse of an unknown realm of organic chemistry. In view of what is known about the phenomenon of immunity, however, it would not appear unreasonable to expect that vaccines prepared from bacteria responsible for the complications of a cold might be useful in preventing such complications.

In the experiments described in the Journal article, it is interesting to note that over half of the attempts to infect the subjects with colds were failures. This was true to the same extent whether monkeys or men were the subjects or whether the infective material was obtained from monkeys or from men. Our knowledge of contagious diseases whose pathogenesis we understand better than we do that of a cold would lead us to expect that any contagious disease would be dangerous to others only for a definitely limited period in its course and likewise from our knowledge of other contagious diseases we would feel warranted in presuming that a cold is contagious before recognizable symptoms develop. It is to be inferred, however, from the Journal article that success or failure in transplanting colds occurred when the infective material was obtained from the same monkey or man on the same day. If so, 50 per cent of failures to infect would appear to possess a practical significance. It certainly would seem pertinent to ask, What is the reason for the failure of such a large proportion of the attempts to transmit colds experimentally? If it indicates an immunity on the part of the subject, to what was this immunity due? May we hope through some discovery in organic chemistry to find a way of establishing such an immunity artificially even though the initial infective agent of a cold may remain unidentified?

TO PREVENT PNEUMONIA.

While no rules can be formulated which may serve with certainty to prevent pneumonia, the observance of the following will greatly reduce chances of developing pneumonia.

Avoid fatigue — Avoid bad air, including over-heated, over-dry, ill-ventilated rooms — Avoid contaminated food — Avoid unsterilized eating or drinking utensils — Wash hands before eating.

JOSEPH W. MONAHAN PROMOTED TO POSITION OF DEPUTY COMMISSIONER IN CHARGE OF VITAL STATISTICS.

On December 1 Joseph W. Monahan was appointed a Deputy Health Commissioner to fill the vacancy caused by the retirement of Frederick W. Davis, Deputy Commissioner of Vital Statistics, Records and Accounts.

Mr. Monahan entered the Statistical Division January 21, 1911, and since April, 1917, has actually been in charge of the statistical work of the department. He is a trained statistician and has become widely known by reason of the recognized completeness and reliability of the statistical information published by the Boston Health Department.

VIRUS DISEASES.

Our present almost complete impotence in face of such deadly diseases as measles, yellow fever and encephalitis, among many others, and of such ruinous plagues among live stock as foot-and-mouth disease, swine fever and rinderpest — and to these may be added destructive diseases affecting potato, tobacco and banana crops — is such as to justify and indeed to demand an army of skilled workers. . . . The reward for the solution of the present mysteries will certainly be immense in the new control it will bring over diseases that kill by the million; and another kind of reward will almost certainly be found in the new illumination that discovery of the laws governing the structure and behavior of these virus bodies will give within the unknown territory between living and nonliving matter.

They (viruses) are concerned with an invisible underworld of bodies that in size stand somewhere between the largest known molecules of dead organic matter and the smallest miscroscopic bacteria. These cannot be seen as definite structures by ordinary microscopic means, and the relation to them of certain objects made visible by special optical methods is still a matter of discussion. They are called "filter-passing," because many of them will traverse a filter fine enough to hold back and strain off ordinary bacteria from a fluid containing them. Whether these "viruses" are organized as minute, ultra-miscroscopic bodies is still an open question; in any case, they are presumably too small to have an organization similar to that of such cells as have hitherto been regarded as primary units of living matter. Nobody has yet succeeded in preparing an artificial fluid which will, by itself, provide conditions in which these viruses will reproduce themselves and multiply; some of them,

however, will grow in artificial conditions if a piece of surviving tissue, taken from a freshly killed animal, is added to a suitable medium. It seems to be characteristic of a virus that it can multiply only in the presence of living cells which it can infect.

When the appropriate virus in minute quantity is introduced into the animal, or the plant, which it can infect, then there may occur with almost incredible rapidity an unseen and unexplained multiplication of it throughout all parts of the organism attacked.

— *Report of the British Medical Research Council, 1928-29.*

CHILD WELFARE.

From November 19 to November 22, a National Child Welfare Conference was held at Washington, D. C., by invitation of President Hoover. About three thousand delegates were in attendance. In addressing the conference, President Hoover said in part as follows:

"The fundamental purpose of this conference is to set forth an understanding of those safeguards which will assure to them health in mind and body. There are safeguards and services to childhood which can be provided by the community, the state, or the nation — all of which are beyond the reach of the individual parent. We approach these problems in no spirit of diminishing the responsibilities and values or invading the sanctities of those primary safeguards to child life — their homes and their mothers. After we have determined every scientific fact, after we have erected every public safeguard, after we have constructed every edifice for education or training or hospitalization or play, yet all these things are but a tithe of the physical, moral, and spiritual gifts which motherhood gives and home confers. None of these things carry that affection, that devotion of soul, which is the great endowment from mothers. Our purpose here today is to consider and give our mite of help to strengthen her hand that her boy and girl may have a fair chance.

"Our country has a vast majority of competent mothers. I am not so sure of the majority of competent fathers. But what we are concerned with here are things that are beyond her power. That is what Susie and John take on when out from under her watchful eye. She cannot count the bacteria in the milk; she cannot detect the typhoid which comes through the faucet, or the mumps that pass around the playground. She cannot individually control the instruction of our schools or the setting up of community-wide remedy for the deficient and handicapped child. But she can insist upon officials who hold up standards of protection and service to her children — and one of your jobs is to define these standards

and tell her what they are. She can be trusted to put public officials to the acid test of the infant mortality and service to children in the town — when you set some standard for her to go by.

" These questions of child health and protection are a complicated problem requiring much learning and much action. And we need have great concern over this matter. Let no one believe that these are questions which should not stir a nation; that they are below the dignity of statesmen or governments. If we could have but one generation of properly born, trained, educated, and healthy children, a thousand other problems of government would vanish. We would assure ourselves of healthier minds in more vigorous bodies, to direct the energies of our nation to yet greater heights of achievement. Moreover, one good community nurse will save a dozen future policemen.

" Our problem falls into three groups: First, the protection and stimulation of the normal child; second, aid to the physically defective and handicapped child; third, the problems of the delinquent child.

" Statistics can well be used to give emphasis to our problem. One of your committees reports that out of 45,000,000 children —

35,000,000 are reasonably normal.
6,000,000 are improperly nourished.
1,000,000 have defective speech.
1,000,000 have weak or damaged hearts.
675,000 present behavior problems.
450,000 are mentally retarded.
382,000 are tubercular.
342,000 have impaired hearing.
18,000 are totally deaf.
300,000 are crippled.
50,000 are partially blind.
14,000 are wholly blind.
200,000 are delinquent.
500,000 are dependent."

In the course of the conference a committee submitted the following report, with respect to a nation-wide child welfare program:

1. Every prospective mother should have suitable information, medical supervision during the pre-natal period, competent care at confinement; every mother should have post-natal medical supervision for herself and child.

2. Every child should receive periodical health examinations before and during the school period, including adolescence, by the

family physician, or the school or other public physician, and such examination by specialists and such hospital care as its special needs may require.

3. Every child should have regular dental examination and care.

4. Every child should have instruction in the schools in health and in safety from accidents, and every teacher should be trained in health programs.

5. Every child should be protected from communicable diseases to which he might be exposed at home, in school or at play, and protected from impure milk and food.

6. Every child should have proper sleeping rooms, diet, hours of sleep and play, and parents should receive expert information as to the needs of children of various ages as to these questions.

7. Every child should attend a school which has proper seating, lighting, ventilation and sanitation. For younger children, kindergartens and nursery schools should be provided to supplement home care.

8. The school should be so organized as to discover and develop the special abilities of each child, and should assist in vocational guidance, for children, like men, succeed by the use of their strongest qualities and special interests.

9. Every child should have some form of religious, moral and character training.

10. Every child has a right to a place to play, with adequate facilities therefor.

11. With the expanding domain of the community's responsibilities for children there should be proper provision for and supervision of recreation and entertainment.

12. Every child should be protected against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of joy and play.

13. Every child who is blind, deaf, crippled or otherwise physically handicapped should be given expert study and corrective treatment where there is the possibility of relief, and appropriate development or training. Children with subnormal or abnormal mental conditions should receive adequate study, protection, training and care.

14. Every waif and orphan in need must be supported.

15. Every child is entitled to the feeling that he has a home. The extension of the services in the community should supplement and not supplant parents.

16. Children who habitually fail to meet normal standards of human behavior should be provided special care under the guidance of the school, the community health or welfare center, or other agency for continued supervision, or if necessary, control.

17. Where the child does not have these services, due to inadequate income of the family, then such services must be provided to him by the community.

18. The rural child should have as satisfactory schooling, health protection and welfare facilities as the city child.

19. In order that these minimum protections of the health and welfare of children may be everywhere available, there should be a district, county or community organization for health education and welfare, with full-time officials coordinating with a state-wide program which will be responsible to a nation-wide service of general information, statistics and scientific research. This should include:

(*a*) Trained full-time public health officials with public health nurses, sanitary inspection and laboratory workers.

(*b*) Available hospital beds.

(*c*) Full-time public welfare services for the relief and aid of children in special need from poverty or misfortune, for the protection of children from abuse, neglect, exploitation or moral hazard.

(*d*) The development of voluntary organization of children for purposes of instruction, health and recreation through private effort and benefaction. When possible, existing agencies should be coordinated.

SUMMARY OF WORK, NOVEMBER, 1930.

ADMINISTRATION DIVISION.

Prosecutions	6	Settlements:	
Vacate notice	1	Bills	30
Legal notices	101	Personnel:	
Settlements:		Temporary appointments	3
Total cases	164	Promotion	1
Notices		Trip authorized	1

LICENSES, PERMITS ISSUED, DISAPPROVED, ETC.

Burial permits	930	Stable	1
Denatured alcohol approved	32	Garbage transportation approved	2
Hen licenses approved	18	Pasteurization of milk	1
Massage-manicure approved	81	Milk licenses approved	134
Ice cream dealers approved	58	Pedlers' licenses approved	32
Dump permits approved	2		

MEDICAL DIVISION.

Reported cases	1,288	Visits:	
Nonresidents	76	By V. D. investigator	280
Deaths investigated	24	By medical inspectors to cases of communicable disease	374

BACTERIOLOGICAL LABORATORY DIVISION.

DIPHTHERIA:		
Positive for diagnosis	61	
Positive for release	81	
Negative for diagnosis	380	
Negative for release	99	
No growth cultures	76	
	—	697
DARK FIELD:		
Positive	1	
Negative	1	
	—	2
GONORRHEAL OPHTHALMIA:		
Negative	51	
Unsatisfactory	1	
	—	52
GONORRHEAL URETHRITIS:		
Positive	135	
Negative	739	
Unsatisfactory	2	
	—	876
GENITO URINARY TUBERCULOSIS:		
Negative		20
MALARIA:		
Negative	3	
Unsatisfactory	2	
	—	5
MISCELLANEOUS EXAMINATIONS:		
Positive	8	
Negative	44	
Unclassified	172	
	—	224
TUBERCULOSIS:		
Positive	41	
Negative	273	
	—	314
TYPHOID:		
Positive	3	
Negative	25	
Atypical	7	
	—	35
SYPHILIS:		
Positive	118	
Negative	842	
Unsatisfactory	12	
Doubtful	4	
	—	976
Bacteriological milk examinations		580
Total		3,781
Milk bottles examined		78
Swimming pools examined		64
Caps for milk bottles examined		226
Miscellaneous water samples		12

Smears for Vincent's angina, 22; unit urines, 172; urine for eberthella typhi, 10; feces for eberthella typhi, 10; candy for organisms, 1; cake for B. Coli, 1; paratyphoids, 2; chicken for organisms, 1; turkey for organisms, 1; cultures for virulence, 4.

FOOD DIVISION.

SURVEY OF THE QUALITY OF MILK SOLD IN BOSTON BY WAGON DEALERS AND CHAIN STORES.

The following is the result of a survey made of milk sold in Boston by wagon dealers and chain stores during November, 1930.

All milk sold in Boston is pasteurized, excepting only milk certified by the Medical Milk Commission of Boston, Inc., which may be sold either raw as Certified Milk, or pasteurized as Certified Milk — Pasteurized.

All bacteria counts are made by the standard plate method of the American Public Health Association, using beef extract agar adjusted to a pH of 6.6.

MARKET MILK — PASTEURIZED.

Massachusetts statute law requires not less than 12 per cent milk solids and not less than 3.35 per cent milk fat. The Boston Health Commissioner requires an age of not more than seventy-two hours before pasteurization; a bacterial content of not more than 750,000 in one cubic centimeter before pasteurization, and not more than 50,000 in one cubic centimeter when offered for sale.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Allen, Fred H.	12.81	4.10	20,000
Antetomasso, Peter	13.10	4.20	11,000
Brandley, T. J., & P. J.	12.78	4.00	250
Buxton, William E.*	14.02	4.70	4,000
Casey, James D.	12.56	3.85	21,000
Cashin, J. F. & Co.	12.79	3.91	12,000
Cedar Hill Farm, Inc.*	12.28	3.68	5,000
Chapin, George L.	13.00	4.10	13,000
Clark, Levi	12.40	3.90	11,000
Corkery, John J.	13.00	4.11	27,000
Cosgrove, Martin S.	12.92	4.00	14,000
Daley, John	12.64	4.10	250
Dean, Louis W.*	13.17	4.43	14,000
Deerfoot Farm Company	12.90	4.20	23,000
Denehy, Timothy	12.63	3.87	18,000
Driscoll, William B. & Co.	12.68	3.91	10,000
Elm Spring Farm Company	12.66	3.92	33,000
Ferguson, Malcolm D.	13.08	4.18	20,000
Garfield, Mason *	15.37	6.15	1,700
Garvin, Charles	14.49	5.10	250
Giroux, J. E. & H. J.	12.94	4.00	17,000
Griffin, Joseph L.	12.92	4.04	13,000
Gushee, Chester W.	12.85	3.95	15,000

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Hampden Creamery Company	12.99	4.07	37,000
Herlihy Brothers, Inc	12.55	3.75	36,000
Hickey, J. B	12.47	3.95	4,000
Holden, John E	12.39	3.84	16,000
Hood, H. P., & Sons, Inc	12.47	3.82	18,000
Hutchinson, Frank T	12.67	4.10	100,000
Jones, William T. Company	13.01	4.23	29,000
Kendall Brothers	12.62	3.85	13,000
Kingston Brothers	12.88	4.03	9,000
Knapp, George J.*	12.77	3.88	24,000
Lang Brothers	12.34	3.85	6,000
Larsson, Charles	12.88	3.85	16,000
Lyndonville Creamery Association	12.88	4.10	18,000
Lyons, William A	12.92	4.03	10,000
Manning, Harriet	12.44	3.85	19,000
McAdams, J. F., & Brothers, Inc	12.87	4.02	10,000
McKernan, John	12.99	4.08	14,000
New England Creamery Products Company *	12.77	4.07	16,000
Prescott, J. B., & Co	12.23	3.90	1,500
Robinson, A. J	12.98	4.00	19,000
Schuster, Adam	12.94	4.07	39,000
Seven Oaks Dairy Company	12.57	3.85	15,000
Shick, Jacob	12.72	3.85	26,000
Somerset Farms Creamery Company	13.11	4.30	11,000
Sterling Farm Milk Company	12.76	3.89	14,000
Stone, H. L	12.70	4.02	12,000
Stuart, W. E., Company	12.90	4.05	8,000
Turner Centre System	12.65	3.93	11,000
United Farmers' Co-operative Creamery Association, Inc	12.90	4.05	11,000
Walker-Gordon Laboratory Company *†	12.53	3.80	50
Weiler, E., & Son	13.20	4.31	31,000
Westwood Farm Milk Company	12.63	3.93	14,000
White Brothers	12.76	3.95	17,000
Whiting Milk Companies	12.40	3.77	16,000
Whittemore, W. D	13.10	4.20	16,000
Williams, Edward C	12.96	4.28	13,000
Wiswall, Granville A	12.71	4.05	11,000
Woodland, Charles L	12.92	4.23	26,000

* All milk from tuberculin tested cows.
† All cows tested and reported free from infectious abortion.

CHAIN STORES MILK—MARKET MILK—PASTEURIZED.

Name of Dealer.	Supplied by	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	Hood, H. P., & Sons, Inc...	12.35	3.70	12,000
M. Brown & Sons.....	Whiting Milk Companies...	12.48	3.73	11,000
The Cloverdale Company.....	Herlihy Brothers, Inc.....	12.48	3.73	20,000
Economy Grocery Stores Corporation.	Herlihy Brothers, Inc.....	12.42	3.70	34,000
First National Stores, Inc.....	Bellows Falls Cooperative Creamery Association, Inc.	13.07	4.13	15,000
Morgan Brothers Company.....	New England Creamery Products Company.*	12.77	4.03	26,000
M. Winer Company.....	M. Winer Company.....	12.88	4.12	19,000

* All milk from tuberculin tested cows.

GRADE A MILK—PASTEURIZED.

Massachusetts law requires not less than 4 per cent milk fat; production from Grade A dairies; an age of not more than forty-eight hours before pasteurization; a bacterial content of not more than 250,000 in one cubic centimeter before pasteurization and not more than 25,000 in one cubic centimeter when delivered.

Name of Dealer.	Solids.	Fat.	Standard Plate Count of Bacteria in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Antetomasso, Peter.....	13.92	4.80	4,000
Cashin, J. F., & Co.....	13.19	4.60	8,000
Cosgrove, Martin S.....	13.62	4.65	11,000
Dean, Louis W.*.....	13.53	4.50	4,000
Elm Spring Farm Company.....	13.10	4.34	23,000
Griffin, Joseph L.....	13.39	4.45	9,000
Gushee, Chester W.....	12.79	4.00	9,000
Herlihy Brothers, Inc.....	12.95	4.50	15,000
Hood, H. P., & Son, Inc.*.....	12.73	4.20	11,000
Jones, William T. Company.....	13.75	4.65	10,000
Lyndonville Creamery Association.....	13.38	4.40	17,000
McAdams, J. F., & Brothers, Inc.....	13.21	4.50	7,000
New England Creamery Products Company *.....	13.36	4.38	7,000
Robinson, A. J.....	13.23	4.30	11,000
Seven Oaks Dairy Company.....	13.08	4.20	14,000
Sterling Farm Milk Company.....	12.95	4.15	8,000
Turner Centre System.....	12.55	4.10	3,000
Weiler, E., & Son.....	13.26	4.35	27,000
White Brothers.....	13.19	4.50	12,000
Whiting Milk Companies *.....	12.63	4.11	7,000

* All milk from tuberculin tested cows.

CERTIFIED MILK.

Milk produced, bottled and sealed at the farm under the supervision of the Medical Milk Commission of Boston, Inc. Fat content not less than 3.50 per cent and averaging not less than 4 per cent during ninety days. Bacterial content not more than 10,000 in one cubic centimeter. All cows tuberculin tested and accredited.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P., & Sons, Inc.*.....	Own.....	13.96	4.83	6,000
Turner Centre System.....	Alta Crest.....	13.10	4.10	500
Walker-Gordon Laboratory Company.*	Own.....	12.91	4.20	1,300
Whiting Milk Companies.....	Hampshire Hills.....	13.03	4.00	2,800

* All cows tested and reported free from infectious abortion.

CERTIFIED MILK—PASTEURIZED.

The standards, before pasteurization, to be the same as for Certified Milk. Produced, bottled, sealed and pasteurized under the supervision of the Medical Milk Commission of Boston, Inc.

Name of Dealer.	Kind of Certified Milk.	Solids. Per Cent.	Fat. Per Cent.	Standard Plate Count of Bacteria in One Cubic Centimeter.
Hood, H. P. & Sons, Inc.*.....	Own.....	13.86	4.60	100

* All cows tested and reported free from infectious abortion.

MILK INSPECTION—SAMPLES EXAMINED.

Chemical:	
Milk from wagons	295
Milk from stores	558
Brought by citizens	7
Vinegar	24
Water	2
Miscellaneous	7
Samples referred to Bacteriological Laboratory for examination:	
Milk	580
Bottles	78
Cases	226
Court cases	15
Fines	$180

DAIRY DIVISION.

Total services	1,002	Total cattle inspected	12,264
Dairies inspected	534	Inspection of milk plants and licensed dealers	230
Scoring above 50 *	327	Country creamery inspections	6
Scoring below	207	Sediment tests	217
With milk rooms	420	Investigation of high bacterial counts	2
Without milk rooms	114		
Inactive	13		

* Passable mark.

FOOD INSPECTION DIVISION.

NOVEMBER, 1930.

District inspections	4,644
Reinspections	495
Market inspections	1,576
Terminal inspections	729
Vehicle inspections *	5,135
Stand inspections	1,833
Complaints	43
Notices to abate	240
Condemnations	132,181 pounds
Pedler Service:	
Numbers assigned	43
Licenses certified	32
Vehicles approved	786

* This represents weekly inspections for four inspectors of about three hundred pedlers' vehicles on the Saturday market.

ABATTOIR DIVISION.

Cattle inspected	2,840	Parts condemned	940
Calves inspected	3,127	Animals condemned	42
Swine inspected	3,361	Total of meat condemnations (pounds)	17,451
Sheep inspected	564		

SANITARY DIVISION.

Original inspections	3,589	Complaints investigated	671
Causes for action found	2,145	Nuisances abated	2,349
Reinspections	7,735	Routine inspections	3,699
Legal notices served	119		

Infection takes place most readily and most commonly in the early years of childhood. We are conservative in saying that the great majority of all children are infected with tuberculosis before they are fifteen years old.— *Louisiana State Board of Health Bulletin, December, 1929.*

CONQUEST OF INFANTILE PARALYSIS FORESEEN.

The eventual conquest of infantile paralysis, the disease that has crippled many children in the last two years, is forecast by experimental work at the Rockefeller Institute for Medical Research, New York, reported to the National Academy of Sciences.

TUBERCULOSIS DIVISION.

Districts.	Number of Clinic Sessions.	Total Number of Patient Visits at Clinics.			Total Number of New Examinations at Clinics.		
		Adults.	Children.	Total.	Adults.	Children.	Total.
South End	17	111	119	230	21	11	32
East Boston	11	64	59	123	6	8	14
North End	12	16	62	78	—	4	4
West End	12	37	96	133	4	10	14
South Boston	12	60	52	112	11	12	23
Boston Dispensary	8	28	15	43	10	3	13
Brighton	5	11	5	16	2	2	4
Charlestown	6	22	31	53	3	8	11
Codman Square	8	98	70	168	13	10	23
Hyde Park	7	31	28	59	2	7	9
Arcadia Street	4	12	16	28	3	3	6
Roxbury	3	63	52	115	6	8	14
Totals	105	553	605	1,158	81	86	167

Districts.	Von Pirquet.	Wassermann.	Lamp.	X-Ray.
South End	18	17	82*	—
East Boston	17	2	—	—
North End	6	—	—	—
West End	15	4	—	—
South Boston	19	8	142*	—
Boston Dispensary	6	2	—	—
Brighton	5	1	—	—
Charlestown	9	2	—	—
Codman Square	11	13	—	—
Hyde Park	5	2	—	—
Arcadia Street	3	1	—	—
Roxbury	10	3	—	—
Totals	124	55	224	—

* Lamp activities at South End and South Boston only.

A WARNING.

Most persons who contract pneumonia have had colds.

Colds are never to be neglected. Their proper care should include the avoidance of crowds where people may be scattering pneumonia germs.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING NOVEMBER, 1930.

Classification.	Number.	Percentage.
After death	9	24.32
Seven days or less	2	5.41
Eight to fourteen days, inclusive	3	8.11
Fifteen to twenty-one days, inclusive	—	—
Twenty-two to thirty-one days, inclusive	1	2.70
Within First Month. (Total)	15	40.54
Within second month	1	2.70
Within third month	—	—
Within fourth month	2	5.41
Within fifth month	1	2.70
Within sixth month	2	5.41
Within seventh month	1	2.70
Within eighth month	1	2.70
Within ninth month	—	—
Within tenth month	—	—
Within eleventh month	—	—
Within twelfth month	—	—
Within First Year Preceding Death. (Total)	23	62.16
Within second year	3	8.11
Within third year	2	5.41
More than three years	9	24.32
Grand totals	37	100.00

MONTHLY REPORT OF ADMISSIONS TO AND DISCHARGES FROM TUBERCULOSIS SANATORIUMS OF BOSTON CASES FOR THE MONTH OF NOVEMBER, 1930.

Public Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Boston Sanatorium	37	33	19	11
North Reading State Sanatorium	7	5	3	3
Lakeville State Sanatorium	—	4	2	6
Rutland State Sanatorium	3	2	3	2
Westfield State Sanatorium	—	—	1	—
Tewksbury	2	4	—	—
Totals	49	48	28	22

Private Sanatoriums.	Admitted.		Discharged.	
	M.	F.	M.	F.
Doctor Lapham's Sanatorium	—	—	1	1
Plymouth County Sanatorium	—	—	—	1
Channing Home	—	—	—	—
United States Veterans' Hospital	2	—	8	—
Doctor Crane's Sanatorium	—	—	2	7
Totals	2	—	11	9

CHILD HYGIENE DIVISION.

Report of Activities of Medical Inspectors, November, 1930.

Inspections	499
Physical examinations	422
Schick tests	190
Toxin-antitoxin	2,580
Vaccinations at units	214
Vaccination certificates	150
Day nursery visits	14
Parochial school visits	32
Conferences	13

Report of Child Health Conferences, November, 1930.

Station.	Number of Babies.	Number of Pre-school (age) Children.	Total Attendance.	Number of New Babies.	Number of New Preschool (age) Children.	Total New Cases.	Number of Conferences.	Average Attendance.
Old Town Hall, Brighton	193	19	212	34	1	35	4	53
31 Lincoln street, Brighton	65	4	69	7	—	7	3	23
Charlestown Municipal Building	334	21	355	30	2	32	8	44
Codman Square Library	541	126	667	72	11	83	8	83
Columbia Road Municipal Building	280	14	294	42	3	45	7	42
1 Arcadia street, Dorchester	308	7	315	40	—	40	6	53
East Boston Health Unit	320	20	340	49	10	59	7	49
Hyde Park Municipal Building	191	23	214	27	1	28	6	36
Curtis Hall, Jamaica Plain	223	18	241	25	—	25	4	60
41 North Margin street	141	24	165	17	—	17	6	28
Roslindale Municipal Building	303	26	329	32	2	34	4	82
Roxbury Health Unit	582	26	608	65	2	67	11	55
Children's Hospital	118	7	125	10	—	10	3	42
1049 Columbus avenue	282	12	294	33	1	34	6	49
133 Dorchester street, South Boston	274	34	308	42	3	45	6	51
57 East Concord street	232	19	251	24	2	26	6	42
122 Tyler street	65	28	93	15	5	20	2	46
17 Blossom street	280	82	362	20	—	20	7	52
Totals	4,732	510	5,242	584	43	627	104	49

CHILD HYGIENE DIVISION REPORT OF TOXIN-ANTITOXIN ADMINISTRATIONS AND VACCINATIONS AT CHILD HEALTH CONFERENCES, NOVEMBER, 1930.

Station.	Toxin–Antitoxin.				Number of Vaccinations.
	First.	Second.	Third.	Total.	
Old Town Hall, Brighton	5	9	10	24	7
31 Lincoln street, Brighton	—	3	3	6	1
Charlestown Municipal Building	11	16	35	62	14
Codman Square Library	36	41	29	106	29
Columbia Road Municipal Building	10	11	4	25	6
1 Arcadia street, Dorchester	4	13	28	45	30
East Boston Health Unit	—	—	—	—	—
Hyde Park Municipal Building	2	5	10	17	13
Curtis Hall, Jamaica Plain	6	7	2	15	6
Roslindale Municipal Building	6	8	7	21	11
Roxbury Health Unit	19	30	31	80	34
Children's Hospital	4	7	10	21	11
1049 Columbus avenue	6	3	2	11	26
133 Dorchester street, South Boston	—	—	—	—	3
57 East Concord street	—	—	1	1	12
122 Tyler street	3	2	—	5	3
17 Blossom street	—	3	—	3	—
North End	2	1	6	9	7
Totals	114	159	178	451	213

COOPERATIVE HEALTH UNIT REPORT, NOVEMBER, 1930.

	Charlestown.	East Boston.	North End.	Roxbury.	South Boston.	South End.	West End.	Totals.
BOSTON DISPENSARY:								
Calls by district physicians	66	.....	61	.....	42	.....	43	212
BOSTON LYING-IN HOSPITAL:								
Prenatal clinics	5	4	3	4	3	3	3	25
Attendance	40	76	35	34	55	26	40	306
New cases	8	21	14	7	19	7	11	87
COMMUNITY HEALTH ASSOCIATION:								
Homes visited	1,676	2,683	1,318	2,266	2,028	2,541	1,334	13,846
Cases referred	204	.....	.....	197	.....	.....	173	574
Diseases reported	5	.....	.....	.....	.....	.....	2	7
MOTHERS' CLUB:								
Number of meetings	3	4	.....	4	4	4	3	22
Attendance	29	57	.....	106	57	68	70	387
FAMILY WELFARE SOCIETY:								
Number of staff meetings	3	3	.....	.....	3	3	3	15
Attendance	28	27	.....	.....	34	39	34	162
CHILDREN'S HOSPITAL:								
Infantile clinics	4	4	.....	4	5	4	.....	21
Attendance	41	18	.....	55	75	24	.....	213
New cases	.....	.....	.....	.....	.....	.....	.....	.....
BOY SCOUTS:								
Number of meetings	.....	.....	.....	2	.....	.....	.....	2
Attendance	.....	.....	.....	13	.....	.....	.....	13
STATE DEPARTMENT OF MENTAL DISEASES:								
Habit-forming clinics	.....	.....	.....	.....	.....	.....	4	4
Attendance	.....	.....	.....	.....	.....	.....	28	28
New cases	.....	.....	.....	.....	.....	.....	5	5
HEALTH DEPARTMENT:								
Refraction Service:								
Number of diagnoses	.....	.....	94	.....	.....	.....	.....	94
New glasses recommended	.....	.....	37	.....	.....	.....	.....	37
New cases	.....	.....	24	.....	.....	.....	.....	24
MOTHERS' CLUB:								
Number of meetings	1	1	.....	.....	1	.....	.....	3
Attendance	6	12	.....	.....	15	.....	.....	33

TO PHYSICIANS.

Have you attended any births during the calendar year 1929, or any previous year, wherein you failed to make a return of the births to the City Registrar?

The registration of births is of vital importance for its value to both the child and its parents, and for the record of your city in its standing among the cities of the country and the world with respect to its infant mortality rate.

There are many important instances where a birth certificate is found to be of value, especially in later life, and when it has not been reported much embarrassment is caused not only to the individual concerned but to the physician who was in attendance at the birth. We know that a birth certificate is necessary many times during life, and when we need it there is nothing that can replace it; it becomes invaluable.

NURSING SERVICE.

REPORT FOR NOVEMBER, 1930.

HOMES VISITED			15,434
CHILD HYGIENE:			
Visits to new cases		1,316	
Visits to old cases		9,909	
			11,225
Included are:			
Wrong addresses	130		
Not seen	1,169		
Absent visits	1,299		
COMMUNICABLE DISEASES:			
Visits to new cases		619	
Visits to old cases		1,061	
			1,680
Included are:			
Wrong addresses	20		
Not seen*	56		
Absent visits	76		
TUBERCULOSIS:			
Visits to new cases		155	
Visits to old cases		5,004	
			5,159
Included are:			
Wrong addresses	43		
Not seen*	553		
Absent visits	596		
Visits to positive cases	2,314		
Visits to contact cases	1,787		
Visits to suspect cases	462		
	4,563		
MISCELLANEOUS VISITS:			
Patients accompanied to hospital		47	
Visits to day nurseries		40	
Visits to parochial schools		534	
			621
Total number of visits			18,685

	Hrs.	Min.
Hours in station by nurses	3,389	15
Hours at baby and pre-school conferences	1,518	50
Hours at tuberculosis clinic	790	50
Total number of hours	5,698	15

* All calls recorded as "not seen" represent visits made to the homes of the patients, but the patients were out at the time of the visits. These calls are always repeated.

In addition to above, 3,513 visits to different homes were made by the nurses to secure 1,600 schedules for the use of the White House conference.

VITAL STATISTICS, NOVEMBER, 1930.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING NOVEMBER, 1930, WITH COMPARATIVE FIGURES FOR NOVEMBER, 1929.

BIRTHS AND DEATHS.

	Actual Number.			Rate per 1,000 of Population, Except Where Otherwise Stated.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
All Causes:						
Total deaths	888	872	—16	13.14	13.00	—.14
Nonresidents deducted	727	690	—37	10.75	10.28	—.47
By Age:						
Under one year	104	107	—3	1.54	1.59	—.05
One year to four years, inclusive	26	19	+7	.38	.28	+.10
Sixty years and over	387	382	+5	5.72	5.69	+.03
Infant and Maternal Mortality:						
a. Total registered live births	1,105	1,125	—20	16.35	16.76	—.41
b. Registered stillbirths	29	23	+6	.43	.34	+.09
Stillbirths per 1,000 live births and stillbirths	—	—	—	25.57	20.03	+5.54
c. Deaths of mothers from causes incident to childbirth	13	9	+4	.19	.13	+.06
Deaths of mothers per 1,000 live births and stillbirths	—	—	—	11.46	7.84	+3.62
d. Deaths in first year per 1,000 live births	—	—	—	94.12	95.11	—.99

	Actual Number of Deaths.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Violent Deaths:						
Accidents*	43	56	—13	63.6	83.4	—19.8
Homicides	1	4	—3	1.5	5.9	—4.4
Suicides	8	11	—3	11.8	16.4	—4.6
Automobile accidents* (death in Boston)	14	11	+3	20.7	16.4	+4.3
Miscellaneous:						
Alcoholism, acute or chronic (stated as primary)	9	11	—2	13.3	16.4	—3.1
Broncho-pneumonia	50	52	—2	74.0	77.5	—3.5
Cancer	95	95	—	140.5	141.5	—1.0
Cirrhosis of the liver	6	5	+1	8.9	7.4	+1.5
Diabetes mellitus	19	20	—1	28.1	29.8	—1.7
Diarrhea and enteritis (under two years)	16	7	+9	23.7	10.4	+13.3
Degenerative Diseases, So Called:						
Arterio sclerosis	19	29	—10	28.1	43.2	—15.1
Cerebral hemorrhage	53	50	+3	78.4	74.5	+3.9
Cerebral softening	—	—	—	—	—	—
Heart disease	184	155	+29	272.2	230.9	+41.3
Nephritis, chronic	63	66	—3	93.2	98.3	—5.1

* Automobile accidents included in accident total.

Note: All figures for births and deaths are subject to slight increase.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON, NOVEMBER, 1930.

	CASES AND DEATHS.					
	Actual Number.			Rate per 100,000 of Population.		
	1930.	1929.	Increase or Decrease.	1930.	1929.	Increase or Decrease.
Reportable Diseases:						
Anterior poliomyelitis.....Cases..	30	10	+20	44.4	14.9	+29.5
Deaths.	1	2	—1	1.5	3.0	—1.5
Cerebrospinal meningitis.....Cases..	3	5	—2	4.4	7.4	—3.0
Deaths.	2	5	—3	3.0	7.4	—4.0
Diphtheria.....Cases..	88	135	—47	130.2	201.1	—70.9
Deaths.	1	6	—5	1.5	8.9	—7.4
Influenza.....Cases..	6	10	—4	8.9	14.9	—6.0
Deaths.	3	6	—3	4.4	8.9	—4.5
Measles.....Cases..	123	35	+88	181.9	52.1	+129.8
Deaths.	1	—	+1	1.5	—	+1.5
Pneumonia (lobar).....Cases..	136	100	+36	201.2	149.0	+52.2
Deaths.	45	27	+18	66.6	40.2	+26.4
Scarlet fever.....Cases..	163	302	—139	241.1	450.0	—208.9
Deaths.	1	1	—	1.5	1.5	—
Tuberculosis (pulmonary).....Cases..	106	115	—9	156.8	171.3	—14.5
Deaths.	37	43	—6	54.7	64.1	—9.4
Tuberculosis (other forms).....Cases..	23	28	—5	34.0	41.7	—7.7
Deaths.	4	4	—	5.9	5.9	—
Typhoid fever.....Cases..	12	4	+8	17.7	5.9	+11.8
Deaths.	—	1	—1	—	1.5	—1.5
Whooping cough.....Cases..	52	159	—107	76.9	236.9	—160.0
Deaths.	1	2	—1	1.5	3.0	—1.5

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1930 (mid-year), based upon the federal census of 1920, has been used.

* Note.— Forty-seven cases and seven deaths during October, 1930, were of nonresidents, included in these totals.

DO NOT DESTROY.

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CITY OF BOSTON PRINTING DEPARTMENT.

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